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ABSTRACT

This compilation of papers focuses on the economic and educational considerations required for planning transitional services for handicapped youth, and was developed from the second and third annual forums sponsored by the Transitional Programming for Handicapped Youth: Interdisciplinary Leadership Preparation Program at the University of Illinois at Urbana-Champaign. An introductory chapter, prepared by Jeanne Repetto, is titled "Employment of Youth with Handicaps: Economic and Educational Considerations." The seven forum papers have the following titles and authors: "Competitive Employment: Trends and Issues," (Frank Bowe); "Contemporary Issues and Future Trends that Impact on Employment of People with Handicaps," (Henry McCarthy); "Fostering Cooperation between Industry and Special Education in the Education and Training of Disabled Students," (Donald Clark); "Reflections on the Transition Initiative," (Eugene Edgar); "Worksite Modification To Enhance the Productivity of Persons with Severe Disabilities: Art, Science, or Witchcraft," (John Leslie); "Revising Vocational Education in the Secondary School: Implications for Handicapped Students," (Jane Plihal); and "The Many Faces of Accountability," (Robert Schalock). Graduate students at the University of Illinois served as reactors to the papers and developed brief commentary statements which are also included. (JDD)

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School-to-Work Transition for Handicapped Youth: Perspectives on Educational and Economic Trends

Repetto

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Office of Career Development for Special Populations

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Project Officer: Dr. Angele Thomas
U.S. Department of Education

School-to-Work Transition for Handicapped Youth: Perspectives on Educational and Economic Trends

Edited by
Jeanne B. Repetto
University of Illinois at Urbana-Champaign

September, 1987

Office of Career Development for Special Populations
College of Education
110 Education Building
1310 S. Sixth St.
Champaign, IL 61820

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Preface

Throughout the 1980s the educational and employment prospects for our nation's youth have been the center for extensive, continuing, public debate. High levels of youth employment, the lack of basic skills attainment, and the impact of technology in the workplace are three major issues that have focused this debate. Major curricular reforms for the nation's schools and universities have been proposed by various commissions and study groups representing the views and interests of business, federal and state legislators, parents, educators, and a host of others. Many of these reports recommend policy and programmatic interventions designed to create a smoother transition between the schooling and the initial employment phase of adult life.

The problems of youth unemployment and school-to-work transition are particularly acute for handicapped youth. Madeline Will, the U.S. Assistant Secretary for Special Education and Rehabilitative Services, notes that the majority of the 300,000 handicapped youth leaving school each year are either unemployed or significantly underemployed, and most have earnings at or below the poverty level. In response to this pressing problem, the Congress and U.S. Department of Education have funded a series of demonstration, research, and personnel preparation projects to further study the complexities of the problem, develop appropriate interventions, and train professionals from different disciplines and fields to facilitate the adoption and use of improved practices. Over the past two years, approximately 150 projects have been funded representing an investment of more than $7 million annually. Universities, state education and rehabilitation agencies, local schools, rehabilitation facilities, and parent and advocacy organizations have developed and adopted innovative program models and undertaken applied research and development projects. Initially funded in October, 1984, the Transitional Programming for Handicapped Youth: Interdisciplinary Leadership Preparation Program at the University of Illinois at Urbana-Champaign was one of these projects.

Over the three year funding period, the program provides doctoral level preparation for five students and masters level training for ten students who plan to take leadership roles in universities and other organizations serving handicapped youth. The students were selected from varied disciplines and professional backgrounds such as special education, vocational education, rehabilitation, social work, developmental disabilities, and business, to ensure that the program and its instructional components would address the complexities of the transition process from multiple perspectives. The faculty members directly involved in the program are also drawn from multiple fields: Dr. L. Allen Phelps (vocational education), Dr. Janis Chadsey-Rusch (special education), Dr. Paula Meares (social work), and Dr. Janet Floyd (rehabilitation). The students complete coursework, seminars, practica, and assistantship experiences based on an individualized program of graduate study. The coursework and related experiences focus on building their competency in three strands--transitional programming, social and organizational change strategies, and personnel development practices.

Central to the program's instructional design is an Annual Forum which provides an opportunity for the faculty and graduate students to interact with distinguished leaders and scholars regarding transition-related issues for

handicapped youth. The first Forum was held September 4-6, 1985 and focused on education and training systems and issues. The proceedings from this Forum have been published in a document entitled "School-to-Work Transition for Handicapped Youth: Perspectives on Education and Training." A second annual Forum, which focused on employment trends and issues and their impact on populations with disabilities and handicaps, was held September 10-11, 1986. The third and final Forum focusing on a review of current theories of transition and how they relate to what is actually taking place in the field was held July 19-20, 1987. During the two-day Forums, papers were presented by leaders in the field with time set aside for discussion of each paper. Program faculty members, graduate students and other University faculty served as session leaders and discussants.

Seven of the eight papers contained herein were presented at the second and third annual Forums. Following the Forums, the presenters were invited to revise their papers based on the comments provided by the discussants. Once the final papers were received, the graduate students were asked to develop brief Commentary statements, which are also included herein. These statements note the significant points raised in each paper and offer supplementary perspectives on selected issues. The introductory chapter was prepared by Dr. Repetto, who served as the project co-director during the time of the second and third annual Forum.

Special acknowledgement needs to be given to the Interdisciplinary graduate students for their work in helping to organize and conduct each Forum. The students did an excellent job as reactors to the papers presented both during the Forums and in written Commentaries. Special credit needs to be given to Pat Decoteau and Annette Veech for their support and scholarly work in the editing of this document. Dr. Floyd should be commended for the manner in which she planned and conducted the second Forum. The project faculty, Drs. Phelps, Chadsey-Rusch, Meares, and Floyd are due a vote of thanks for their support, willingness to participate and helpful insights. A final thanks goes to Dr. L. Allen Phelps for his leadership as the project director.

Chapter 1

Employment of Youth with Handicaps: Economic and Educational Considerations

Jeanne B. Repetto, Ph.D.
University of Illinois at Urbana-Champaign

Employment of Youth With Handicaps: Economic and Educational Considerations

The educational literature of the 1980s abounds with models for providing services to youth with handicaps for the transition from school to work. Most models have in common an educational base, built throughout the high school years, that includes the provision of appropriate life skills curricula, bridges that extend into the world beyond school delineating levels of potential support services, and types of employment and community settings available to youth with handicaps (Halpern, 1985; Phelps, 1986; Wehman, 1984; and Will, 1984). It is assumed that the appropriate curriculum along with cooperative efforts by service providers, parents, and educators outlined through a transition plan will facilitate a student's transition from school to work (Bates, Suter, & Poelvoorde, 1986). Although these models have pushed the field of special education forward in its conceptualization of secondary education services, perhaps it is time to step back and look at the world outside school that these students are being prepared to enter.

The business world is full of economic and market trends that must be studied and understood in order to prepare students for jobs that will be available in their futures. These data have a direct impact on the conceptualization of education programs. This introductory chapter discusses the transition movement as well as economic and curriculum trends that should be considered when planning transitional services for youth with handicaps.

Transition From School to Work

Madelene Will (1984), Assistant Secretary for the Office of Special Education and Rehabilitative Services (OSERS), was timely in establishing transition from school to work as the priority for this decade. Her foresight has caused educators to take a second look at how and why they are educating students with handicapping conditions. Too many special educators see themselves as secondary educators who provide remedial academics to special education students in order to maintain their enrollment in "regular" education classes. This perception promotes dependency and may prepare students better for functioning in a structured school environment rather than in the outside world. The transition initiative has forced secondary special educators to rethink the reasons for educating students. To ponder the question--Is it more important for the student to function in science class or the real world?

It would be naive to think that transition from school to work was set as a priority for purely humanitarian reasons. In reality it would appear that Will was prompted to visualize the transition movement by an unemployment rate ranging from 50 to 80% for disabled workers (U.S. Commission on Civil Rights, 1983), a reported 8% of the gross national product being spent to fund disability programs that support dependency (Will, 1984), and the fact that those individuals with disabilities who are employed are often underemployed (Hippolitus, 1980). Until these individuals are able to obtain and maintain higher levels of employment, transition services are likely to remain a priority in the education of students with handicaps (Phelps, 1986).

Along with setting transition as a national priority for this decade several pieces of legislation have been passed to assure the provision of transition services. One

interesting aspect of the legislative provisions described below is their grounding in several disciplines, which seems to indicate a strong feeling that transitional services are only possible through cooperative efforts.

- The Carl D. Perkins Vocational Education Act (Public Law 98-524) assures the provision of counseling services to facilitate the transition from school to post-school employment and career opportunities.

- The Education of the Handicapped Amendments (Public Law 99-457) provides funds for transition services and the evaluation of transition demonstration projects.

- The Rehabilitation Act of 1973 has been reauthorized for three years by Public Law 99-506. This Act adds supported employment as an authorized vocational rehabilitation service and provides discretionary grant monies for transitional service activities.

- The Fair Labor Standards Act as amended by Public Law 99-489 provides for wages paid to individuals in sheltered workshops to be commensurate with wages paid to nonhandicapped workers completing comparable work in the vicinity of the workshop.

- The work incentives provisions of the Social Security Act have been revised by Public Law 99-643 to assure that the Supplemental Security Income program and Medicaid benefits do not serve as disincentives to employment.

- Targeted jobs tax credit has been reinstated for a three-year period by Public Law 99-514, The Tax Reform Act of 1986 (Federal Register, 1985; Social Security Administration, 1987; Whitehead, 1987).

The transition initiative and subsequent legislative support have spurred educators and service providers to develop models for the provision of transition services (Halpern, 1985; Kerachsky & Thornton, 1987; Phelps, 1986; Wehman, 1984). Although it is too early to evaluate the long-term effectiveness of these models, certain components are common to most models, including interagency agreements, functional school curricula, written transition plans, linkages with business and community, and the provision of the necessary support services. The developers of these models have undertaken the painstaking task of providing a conceptual framework for the delivery of transitional services.

Once a conceptual framework has been developed, it is time to implement its components. This requires the review of current curriculum and provision of services. In revising curriculum it is important to note common threads that run through exemplary programs. Carr (1986), for example, has listed the following threads in regards to vocational education programs:

1. The program is not developed in educational isolation; it involves business and industry and others from the inception to the finished product.

2. The program is an integrated product blending all components into a comprehensive learning experience helping learners to draw relationships between all aspects of the curriculum.

3. The program presents a logical sequence that is clearly outlined and able to be individualized for all students.

Although Carr listed these components with vocational education programs in mind it would seem that they have direct implications for the redesigning of curricula for programs offering transitional services. When developing these, educators must work with business and industry and other service providers throughout the total process to assure that the curriculum will be functional. Curriculum developed for transition must draw relationships between academic subjects and their uses in the real world. Finally, concepts need to be presented in a logical sequence which can be individualized through the transition plan or the individual education plan.

Implementation of the transition models must go beyond the internal commitment to individual staff members, programs, or the institution to focus on the external factors that will impact students as they leave school. To understand these factors so that they can be infused into the provisions of transitional services, educators and service providers need to approach business and industry in a manner that promotes cooperative planning. Cooperative planning can only occur once a team has been developed to work jointly on the problem. According to Weisbord (1985) there are four key factors in team building:

- Interpendence -- Each member has a stake in solving the problem.
- Leadership -- One member feels strongly enough about the problem at hand to assume the role of leader.
- Joint Decision -- Each member has made the decision to participate in the group.
- Equal Influence -- Each member has equal influence in team efforts and decisions.

Throughout these four points a theme of equal ownership, mutual understanding, and vested interests is apparent. It would seem that if all parties involved had a working knowledge of each others' language, guiding principles, and needed outcomes, then cooperative planning for transition could become a worthwhile venture. A review of the current literature on the formation of cooperative plans offers little information about methods that educators can use to understand the world of business and industry in order to show what education can do for businesses. Most of the literature focuses on what business has to offer education, an approach that will not serve to form any longlasting cooperative efforts. The reality is that without these cooperative efforts, students will not be prepared to enter the outside world upon graduation and transition planning will not become a reality.

Economic and Educational Considerations

The major foci of this conference proceedings document are the economic and educational considerations required for planning transitional services for youth with handicaps. Understanding these factors forms the basis for a true partnership between all participants in the provision of transitional services. This foundation should be grounded in mutual understanding and respect for the parameters in which each partner functions. Learning about the effects of economic trends on the job market and developing educational curriculum that addresses the transitional needs of

students can only serve as one of many building blocks in laying a firm foundation based on mutual understanding. Respect can only be fostered once an understanding of each discipline has been achieved. The following review of economic trends and educational issues presents each category separately, but they should not be viewed as independent, but rather as interdependent, with each affecting the whole.

Economic Trends

In his paper Bowe urges us to treat economic trends as our friends. These trends seems to be toward less competition for the disabled youth for finding jobs. Many communities are having a hard time filling entry-level positions. It has become common to see Help Wanted signs in the windows of fast food restaurants, dry cleaners, and department stores. The cause for this decline in available employees is the drop in the number of youths available to work. As stated by Bowe, we are in the "Baby Bust," the "Baby Boom" is over. Bowe cautions that the availability and ease of obtaining entry-level positions makes it easy to settle for placing youths in these jobs. It must be remembered that these positions offer little security for the future. Trends in the job market need to be considered when training for other than entry-level positions. These trends can help to forecast what areas of training will most likely yield job opportunities. According to Bowe the fields in which to train individuals are health-care, financial services, computer information specialist, nonprofit sector fund raisers, and entrepreneurship. Many disabled youth will reach their full potential through the getting and keeping an entry-level position; for them the current job market trends appear to be favorable. Other disabled youth will aspire to occupations that offer more stability and opportunities for advancement. Studying job market forecasts is important in order to offer training programs that will best prepare these youth for future jobs.

An underlying theme in Bowe's paper is to take advantage of the trends in order to encourage business to offer job training programs, reasonable accommodations, promotion potential, and other benefits to youth employees. This theme has been reiterated in the 1986 National Alliance of Business report "Employment Policies: Looking to the Year 2000." In this report business is encouraged to play a role in assuring the quality of public education and training programs. Business needs to get involved because of the decline in the labor pool and the need for basic academic skills to perform future jobs. The report outlines responsibilities for business in three areas: (a) to help upgrade school facilities, (b) to assure that skill training programs meet the needs of business, and (c) to relate academic curriculum to the world of work.

McCarthy's paper discusses the field of human resource development and how this is affected by the reduced pool of potential employees in business. Companies are investing in the retraining and habilitating of injured workers to assure a supply of dependable employees, if you will, to protect their human resource investment. This point is illustrated by an article by Sheie (1985), "Adapting Training for the Hearing Impaired," appearing in the Training and Development Journal.

McCarthy goes on to discuss demographic, economic, legislative, public opinion, and technological factors that help to shape employment opportunities for persons with disabilities. He seems to agree that now is the time for the public sector to initiate cooperative efforts with the private sector. It is noted that barriers in such areas as work disincentives, operating expense controls, legislation, and public

perceptions need to be addressed by both sectors to help facilitate partnerships and employment of the disabled.

An added barrier, pointed out in a paper by Clark is the mismatch between jobs and job seekers which continues to increase the gap between work force requirements and student preparation programs. In order to cut through these barriers, Clark advocates the formation of an Industry-Special Education Council. The Council serves as the central coordinating alliance for all existing advisory councils. This central coordination helps to strengthen existing committees through coordination of efforts. This coordination of efforts is necessary to eliminate the current fragmented, unstructured, and ad hoc methods of interacting with the business community. Clark views organization as the first step to improving the education and training of handicapped students.

Educational Issues

Edgar's paper presents a viewpoint that at first glance appears to negate the efforts of the transition movement. The opinion presented is that some students should not be trained for competitive employment because they will never be able to reach this goal. In reality the business world will not hire these students because they will not be able to compete with the production levels of other employees or applicants. These students should be trained to be competent workers. Edgar feels that there is a fallacy in our societal belief of valuing individuals for what they can produce instead of for who they are. When taking a second look at Edgar's paper it becomes clear that he has pointed out what is perhaps the meaning behind the transition movement: To help individuals make a smooth transition from school to work at their highest level of achievement. For some students this level of achievement will be competitive employment and for others it will be to reach a level of competence in their employment setting. This type of thinking allows educators, support personnel, and business representatives to view students as total persons and guide them to the level of employment that will give them success, not frustration.

In his paper on worksite modifications, Leslie also points out the need to look at disabled individuals as whole persons. When modifying worksites, both a person's capabilities and discapabilities need to be considered. Along with adapting the worksite to meet the needs of the individual, the accessibility of housing, transportation, and the community should be evaluated. Looking at the total environment helps to assure the most optimal situation for a person to be a productive employee and contented citizen.

Leslie promotes the analysis of the total environment and then the use of the least amount of modifications possible to adapt the environment. Adaptations must be pragmatic and available to all segments of business and industry. Because employers have the same expectations for disabled employees as for nondisabled workers, modifications must be cost effective and simple.

The papers discussed thus far have been centered around employment trends, forming cooperative efforts with business and industry, philosophically looking at the training of students, and worksite modifications. Plihal brings all these aspects together to look at the issue of what is the best curriculum format for providing training to students with handicaps. Simply put, how can we best prepare students for the transitioning from school to work. In discussing this issue, Plihal presents the pros and cons of three different curriculum models. The models range from job-specific training

to training students to reform their own work environments. In summarizing the models she states: "All three plans would emphasize the development of students' cognitive, social, and vocational skills." This statement once again brings us to the theme that the whole person must be considered when transition services are being developed and implemented.

In the final paper included in this monograph, Schalock proposes that the provision of transitional services is a social experiment, the hypothesis being that these services will make a difference in the lives and employment status of disabled individuals. Throughout his paper, Schalock outlines the reasons and appropriate methods for evaluating this social experiment. His closing remarks reiterate that we are accountable for our future and for the way in which history will view our efforts. These reasons, along with the need to monitor and adjust the services provided to students, are given as the basis for evaluating programs .

Summary

The previous section outlines a collection of papers presented at two Forums surrounding the global issue of school-to-work transition for youth with handicaps. Each author brings to their paper a unique background and mindset. For this reason a variety of views are presented in this proceedings document. It is the reader's responsibility to sift through the papers and synthesize the various opinions into useable information. This type of synthesis was the intent of the Forums, to present views of leaders in the field and to provide the audience with the opportunity to take issue with the concepts presented. It is hoped that through this process a new and clearer understanding of the economic and educational issues surrounding the transition of youth with handicaps from school to work will emerge.

A few critical questions and issues to consider while reading this document might be:

- To what extent can and should the private and public sectors work together to better train the future workforce?
- What can educators learn from the business world and what can the business world learn from education?
- Does education have anything to offer business and industry?
- Should the goal for all youth with handicaps be competitive employment?
- Can the transition initiative reach its goal by focusing only on the issue of employment?
- What curriculum will be most effective in training secondary students with handicaps?
- What role does program evaluation play in the development of transitional programs?

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Chapter 2

Competitive Employment: Trends and Issues

Frank Bowe, Ph.D.
FBA, Incorporated New York

Competitive Employment: Trends and Issues

The purpose of this paper is to discuss the labor market in America and how this impacts on youth making the transition from school to employment. One issue is the transition-age population of people with disabilities--how many are they? What do we know about these young people? The next logical question is: What is their competition for jobs? In other words, what is known about nondisabled youth in the same age range? And finally, it seems sensible to ask: What kinds of jobs are employers offering to young people these days. That is, what is known about competitive employment for school leavers and labor-market entrants, now and in the foreseeable future? Perhaps another way of saying this is: This paper will discuss supply and demand as each drives the American economy in its dealings with young people who are coming out of high schools, vocational schools, community colleges, and universities to enter the labor force, most of them for the first time.

Examining the most recent data available, from 1985 and 1986 on these issues, we can come to some understanding about where we are and where we are going. In other words, what trends are becoming dominant and what these appear to mean. All of this, it seems, gives us a basis for deciding what we are going to do. If we are not satisfied with opportunities available in competitive employment for young people who are disabled, this discussion might help us to see what steps need to be taken to improve services for disabled youth. To offer a context in which to react to the details, an overview of the key facts and their interpretation will be given as a starting point.

The transition-age group of persons with disabilities is, I think, small enough that we can provide to these people some individual attention. Even including individuals as young as tenth graders and as old as college graduates, we are talking about one million people. Our nationwide network--special education, vocational education, postsecondary vocational and other college programs, and vocational rehabilitation--should be able to assemble the resources needed to help these people to make the transition from school to work. If not, we face some real problems in our service delivery system.

The transition-age population of handicapped individuals is a fortunate one in that it is part of the "baby bust" generation. That is, there are fewer nondisabled individuals with whom to compete than was true of earlier cohorts of transition-age people with disabilities. In fact, in many parts of the country, there just aren't enough young people to fill available jobs.

The economy provides the playing field on which both disabled and nondisabled people are performing. Right now, the economy is generating a substantial number of jobs, but the bulk of these jobs are low-paying, entry-level service-sector jobs. To over-generalize a bit, without actually stretching the truth, what is happening is that hundreds of thousands of men in jobs that involve making things are losing employment while many more women are getting jobs requiring the provision of services. Of course, it is not only women who are taking these jobs and men who are losing other jobs, but that is a strong pattern.

The manufacturing sector is shrinking now, but projections are that goods-producing companies will soon begin transferring the work back to this country. When the jobs return, though, they will be different kinds of jobs. There will be more use of automation and less unionization of the workforce. The two factors--computers/robots

and lower pay/fewer benefits--combine to make it possible for companies to manufacture goods in this country at less cost than they now incur making them abroad.

Professionals planning services for transition-age youth with disabilities face a seeming paradox. It is actually easy, in many parts of the country, to place these youth on jobs right out of high school. That has not always been the case. The down side is that many of those are jobs without a future: low-paying, low-security, low-potential positions.

For some of your students and clients, that will be all to which they realistically can aspire. But for others you will need to challenge them to postpone gainful employment, pursue higher education, and compete for better but less plentiful jobs.

Transition-Age Youth With Disabilities

Our first question is: How many people are we talking about when we discuss "transition-age" young people who are handicapped? It's a good question--and one for which we really don't have very good answers. We face an old problem: How do we define our terms? And what data do we have available? I'll be discussing here, in this section, material that leads to two conclusions:

1. The transition-age population of persons with disabilities is about one million in size.

2. The quality of our data about these people is unacceptably low. In particular, the State Education Agencies (SEAs) and the Local Education Agencies (LEAs) just aren't telling us enough about them.

Both conclusions have bearing upon our consideration of competitive employment of transition-age disabled persons.

Our best sources is the 1985 Current Population Survey. This is a source I have found to be very helpful. For one thing, a single definition is used throughout the country. One might quibble with the definition (I do), but at least it is a consistent one. I also very much appreciate the fact that the data are reported using age ranges I find helpful. The Current Population Survey (CPS) has a category for persons aged 16-24 that fits my needs nicely, because I understand "transition-age" to encompass persons in that age range. That I rely primarily on the CPS may surprise some people.

Some of you would look to the U.S. Department of Education and to the SEAs and LEAs for your numbers. For that reasons, I think it's important to explain why I do not place much credence in those figures.

First, there are questions about the accuracy of the child count figures. SEAs get money for each child they say is a handicapped child receiving special education services, so they have an incentive to increase the numbers. At first glance, getting some $276 per school year per child seems to be little; it is little in comparison with the costs of educating those children. But when you look a little further, you begin to understand. For example, in the 1984-85 school year, Illinois claimed a total of 208,024 children and youth aged 3 to 21 as receiving special education. That's about $57 million in federal funds that state could receive under the Act.

Second, the definitions cause us some concern. In the "hard of hearing or deaf" category, for example, children with fairly minor losses of hearing might be claimed. The "learning disabled" category is so well known as subject to abuse that I need not dwell upon the fact that many people have real doubts about the definitions being used.

Third, in the area of transition, the U.S. Department of Education and SEA/LEA numbers give us too little information. We have only the category 18 to 21 year olds in special education to help us [the next lower category, 12-17, is too broad; there is no category of persons aged 22 and over]. First, more of us consider "transition age" to be broader than that age range. Second, many SEAs and LEAs do not provide special education services past age 18, although they are permitted by the Act to do so. Only 2.8% of all children served in 1984-85 were aged 3-5 and just 4.5% were aged 18 to 21, reflecting the fact that many programs concentrated upon serving 6 to 17 year olds.

Some background may prove to be helpful. The U.S. Department of Education issues an annual report on how the nation is doing in implementing federal laws that govern special education. The 1986 report, called the Eighth Annual Report to Congress on the Implementation of the Education of the Handicapped Act, just came out. It offers us data current as of the 1984-85 school year. The report itself glides over how the terms "handicapped" and "disabled" are defined. In essence, the SEAs and the LEAs defined these terms, unfortunately each pretty much in its own way. And they did that by classifying children and youth into one of ten categories: learning disabled, speech impaired, mentally retarded, emotionally disturbed, other health impaired, hard of hearing and deaf, orthopedically impaired, multi-handicapped, visually handicapped, and deaf-blind. In theory, the SEAs and LEAs were following some criteria in making those classifications. In practice, however, one notes with dismay just how different the states actually were. I don't even want to get into the issue of what is a learning disability and how do we decide that except to note, without comment, that 42.4% of all handicapped children aged 3 to 21 who were being served in the 1984-85 school year were classified as learning disabled.

Now, I'm trying to pin down the size of the transition age population of handicapped youth. But here, as elsewhere, I'm restricted to working with what is given to us. The Annual Report has adopted the age groupings mandated by Congress in its 1984 amendments to the Act (P.L. 98-199): 3 to 5, 6 to 11, 12 to 17, and 18 to 21. In working with this report, then, I am forced to define transition age as 18 to 21; otherwise, I can't use its numbers. This is yet another area in which available data are cause for misgivings.

According to the Eighth Annual Report, there were 192,438 handicapped youth being served by the nation's schools who were between 18 and 21 years of age. That is 3.2% more disabled youth than were being served the previous school year. If we look back six years, though, to the 1978-79 school year, we find that the number of 18 to 21 year olds with disabilities who are being served has jumped 88.3%. In other words, the group nearly doubled in size over the past six school years.

The report is silent on the question of how many 18 to 21-year-old disabled youth were not being served in the nation's schools in any given year, rather simply because the U.S. Department of Education doesn't know. Yet again, the data are as frustrating as they are enlightening.

There are two other ways to interpret the 192,438 figure. First, how much of the total population of disabled youth in schools do these youth represent? According to the report, there were a total of 4,363,031 handicapped children aged 3 to 21 receiving services during the 1984-85 school year. Thus, 4.5% of served children and youth who were handicapped and who were being served were between the ages of 18 and 21. The report says these 18 to 21-year-old handicapped youth constituted 1.2% of all 18 to 21 year olds in the schools that year.

The report goes on to describe at quite some length various demonstration projects aimed at helping the 192,438 youth with disabilities who were in the 18 to 21 age range also includes, under the heading "The Challenge," the somewhat puzzling statement, on page 36, to wit: "Despite the progress that has been made during the past decade in extending educational services to handicapped students at the secondary level, an estimated 300,000 young people may exit from special education this year without the promise of work and community participation." The writers presumably include here younger disabled students as well as those in the 18 to 21 age range, but this is never made clear. It is just one of many instances in which we are dealing with estimates rather than good numbers.

So we have a population of 192,438 individuals aged 18 to 21 who have handicaps and who were being served in the schools in the 1984-85 school year. The first thing that strikes me when I look at that number is how unexpectedly small it seems to be. In Washington, the U.S. Department of Education has worked for the past five years to make a very prominent priority out of services to this group. Somehow, I thought they'd constitute more than just 4.5% of handicapped students being served in the schools--and more than only 1.2% of all youth (disabled and nondisabled) in that age range.

Before moving on to the CPS, however, let me make one or two observations that may be of interest to you in Illinois. The Annual Report says there were 7,040 18 to 21-year-old handicapped youth in Illinois schools during the 1984-85 school year. They represented 3.4% of the 3 to 21-year-old population of youth with handicaps that year, and less than 1% of all 18 to 21 year olds in the state that year.

Let us now turn to the 1985 CPS to find out about how many disabled youth are in the transition-age category. Conducted in March, the CPS reported that 3% of all noninstitutionalized 16 to 24 year olds have work disabilities--that is, permanent health conditions that prevent them from working or limit the amount or kind of work they can do. The figure for 1985 was 1,026,000 persons, or about 8% of all 16 to 64-year-old disabled persons.

This gives us what I believe is a reliable baseline estimate of the transition-age population of persons with disabilities. We're talking about one million people. Remember, however, that these individuals represent just one in every twelve working-age adults with disabilities. Eleven in every twelve 16 to 64-year-old disabled persons are outside the transition age: we must not neglect them in our focus on transition-age youth with disabilities.

The Competition

The one million people we've identified as transition age compete for jobs with nondisabled individuals, usually against people their own age. For this reason, it is

helpful to have some information about 16 to 24 year olds who are not disabled. Again, the CPS helps us more than any other data source. There, for 1985, we find that a total of 34 million young people aged 16 to 24 did not report work disabilities. In 1980, there were 40 million without disabilities and one million with.

Thirty-four million is a lot or people. But a little perspective is very helpful here. Demographers refer to those now leaving schools as members of the "baby bust" generation because it is small compared to the "baby boom" generation. Baby boomers are those born between 1947 and 1964; thus the youngest boomers are now 22 years of age.

Between 1980 and 1985, the population of people aged 16 to 24 dropped fully six million. To place that number into context, it helps to recall that the economy generates about two million new jobs annually. In boom periods, such as the first and second quarters of 1984, the rate shoots up to as high as four million new jobs per year. Since 1980, the economy has created thirteen million new jobs. But now there are six million fewer people looking for those jobs than there were in 1980.

What has been happening, as the supply of young people has shrunk over the past few years, is that employers increasingly have hired older women returning to the labor force. They've also brought in retired men. More and more, as you go to fast food restaurants, for example, you find the people behind the counter aren't new high-school graduates any more. It is not that McDonald's and others don't want to hire youth: they do. It is that, increasingly, they can't find them.

In New England, for example, there are so few young people looking for jobs that future economic growth is expected to be restricted by the lack of jobseekers. Unemployment in New Hampshire right now is 2%. The term "unemployment," remember, includes persons actively seeking work, people laid off and expecting to be called back, and others temporarily between jobs. This means that there is virtually no unemployment in New Hampshire today. In Rhode Island the rate is 3.4%; in Connecticut it is 3.5%; and in Massachusetts it is 4%.

Things have gotten so difficult in some parts of the country that employers are offering bonuses unheard of in years past. The "minimum wage" shops, such as fast food and laundry establishments, now often pay a premium of 30% to 60% over the minimum wage simply because they have no takers at $3.35 an hour. If you work at Bloomingdales in Boston and you bring in a friend who qualifies for work, the store will pay you some $500. There are firms on Long Island, in New York, and in Boston that pay the round-trip fares of workers to get to and from work simply because they have to do so to attract employees.

The competition for transition-age youth with disabilities is largely with their cohorts, nondisabled 16 to 24 year olds. But it is also with displaced homemakers and retired persons brought back into the labor force. In this connection it is worth noting that the number of women who now are in the labor force is very close to its theoretical maximum. Today, some 64% of all women aged 16 to 64 are in the labor force, an all-time high. Given that many women are mothers and that others, for various reasons, don't want to work, the fact that many economists are projecting a levelling off of the growth rate of women working is something that begins to make sense. Says Janice Outtz of the Greater Washington Research Center and author of a new report on women at work: "Companies don't have as many women going to work anymore. The supply is dwindling."

With respect to older persons, the trend is clearly toward less labor-force participation, not more. Males aged 55-64 once had a labor-force participation rate that exceeded 90%; today, the rate is just 68%--and it is falling. Males over the age of 65 participate in the labor force today at a rate of 17.4%, women at a 7.8% rate; as recently as 1970, men over 65 had a 27% rate of labor-force participation, women 9.7%. Although people are living longer, the trend is toward continued early retirement. So it's not likely that older people will be much competition.

This is the reality that gave birth to McDonald's program of hiring disabled people, a program it calls, without blushing, "McJobs." The company actively recruits, make accommodations for, and hires disabled people so that its jobs get filled. We're seeing active recruitment of people with disabilities throughout the service economy.

The oversupply of jobs relative to workers is not something that we see uniformly throughout the nation. In much of the "oil country"--Texas, Louisiana, Oklahoma, in particular--and in some of the farm states such as Kansas and Missouri, we see high unemployment. Some states, such as Ohio and Pennsylvania, have yet to climb out of the depths to which they sank during the 1982 recession because they rely so much upon heavy manufacturing. Illinois is one of those states still having problems finding jobs for its people.

Nonetheless, to borrow a quote from stock market players, "The trend is your friend." And the trend is very strongly toward less competition for disabled young people. That leads us to the next questions: How well are these young people doing now in getting jobs?

Jobs for Training-Age Youth

I said earlier that while it should be quite easy for our service delivery system to assist transition-age youth with disabilities to get entry-level, low-paying jobs in the service sector, the real challenge will be to help these young people obtain better, more secure, higher-paying jobs.

We need to answer several questions. What kinds of jobs seem especially likely to be attractive in the years to come? What are some of the strategies people like you and me could use with success in helping transition-age youth to get those jobs?

Again, the best source available to me is the 1985 Current Population Survey. As of March 1985, when the study was done, labor-force participation by work-disabled youth aged 16 to 24 was 44% for males and 37% for females.

Now, again, it is helpful to define terms. Labor-force participation means someone is working or actively seeking work. If called, they would serve. Not all people in the labor force have jobs; but most do. "Out of the labor force" means that the individual is not working, is not actively seeking work, and if called could not necessarily serve. When we say that 44% of 16 to 24-year-old disabled males were in the labor force last March, we mean they either had jobs or were looking for them; that means that more than half, 56%, neither worker nor were seeking work. In that age range, we can be sure that the vast bulk of them were in schools or colleges. Similarly, among transition-age women, the 37% labor-force participation rate means that 63%, or almost two-thirds, were neither working nor seeking work. I think just about all of them were in school. Put simply, fewer of them had dropped out of school

or finished their schooling prior to receiving a college degree, than is the case among disabled young men.

To place those figures into context, consider that for nondisabled youth of the same age range, the rates of labor-force participation were 69% for males and 63% for females. That is, about two-thirds of nondisabled 16 to 24 year olds either had jobs or were actively looking for them; 31% of the males and 37 % of the females were out of the labor force. If I had to make a guess, I'd say that substantial numbers of these nondisabled young people had part-time and part-year jobs to help them through college. My suspicion is that disabled young people find those supplementary employment opportunities hard to come by, so they concentrate fully upon their education.

There is a further piece of information you needed to understand these numbers. The overall labor-force participation rates by disabled men and women in 1985 were lower than were those for transition-age youth: 37% for males and 25% for females. In other words, 16 to 24-year-old disabled youth actually were more likely to be in the labor force than were older adults with disabilities, on average. Now, to a large extent this is an effect of the arithmetical process of averaging extremes. Labor-force participation by men and women with disabilities who are aged 25 to 34 and who are 35 to 44 is higher than it is among transition-age disabled youth, but it is considerably lower among those aged 45 to 54 and 55 to 64 than it is among 16 to 24 year olds. In other words, the low labor force participation rates of disabled men and women age 45 pull down the averages.

During the peak working years, 25 to 34 and 35 to 44, disabled men participate in the labor force at a 53% and a 50% rate, respectively, according to the 1985 CPS. Among women with disabilities, the rates that year, respectively, were 44% and 34%. These figures illustrate the obvious: large numbers of disabled young people go into the labor force. Those groups, however, are members of the baby boom generation: it's harder for them to get jobs than is the case among today's young people simple because competition is much stronger among 22 to 40 years olds than in any other age cohort in the country today.

Returning to the transition-age cohort again, we need to understand not just that labor-forced participants is a factor but that the kinds of jobs young people with disabilities get these days is cause for some concern. The problem--and it is an important one--is that many of these young people have dead-end jobs. They are working for minimum wage in insecure occupations, with few benefits and little likelihood of career advancement to better, more secure jobs.

What kinds of jobs or careers are likely to help them to escape the uncertainties of minimum-wage employment? Here we are looking at career planning options for today's transition-age youth with disabilities. That is, by any measure, a tricky business. Forecasting where the jobs will be is fraught with difficulties. Nonetheless, there are some trends that are strong enough to be worth our attention.

I think near the top of anyone's list should be careers in the health-care field, particularly for older persons and especially in the community as opposed to within hospitals or institutions. Our society is aging quickly because people are living longer. At the same time, federal rules make it attractive for hospitals to discharge patients to community care-givers at the earliest safe opportunity. Young people who have learned to cope with their own disabilities are already sensitive and skilled at helping

others to cope with limitations and disabilities. So I would look long and hard at community-based health care, health maintenance organization, residential community support service kinds of jobs. People who manage these kinds of programs can expect salaries in the 30s to 50s; people who own them or are the chief executive officers can make in the 80s or even more.

Financial services of all kinds are another strong growth area. The hottest and best-paying, of course, are investment banking jobs. But people who do personal and family financial planning, accounting, pension management, and similar kinds of work should do quite well. It used to be that financial planning was very simple: you took your paycheck, spent some of it, and put the rest into a bank savings account. Today the vehicles for investment and saving are so numerous, and so confusing, that expertise is needed. Today, too, many people just don't have the time to do their own financial planning: this is particularly true of two-income families where both spouses have professional jobs. People in financial planning can make salaries anywhere from the 30s to the 200s or even more; some investment bankers earn $500,000 annually.

Computer programming has been oversold. It is growing, but the base from which it is moving is so small that the percentages are grossly misleading. There just aren't as many programmer jobs coming as there are would-be programmers already looking for them. However, the next step up--computer applications writers, systems analysts, and corporate management information system professionals--are in strong demand and likely st stay that way for the foreseeable future. It's not just a matter of being able to program in COBOL or some other language. It's a matter, rather, of making a computer do something for a company--and solving problems that emerge with complex software. Salaries in this area range from a low in the 20s to a high in the 90s.

In the nonprofit sector, the biggest demand clearly is for fund raisers. Increasingly, organizations serving disabled people or any other vulnerable population are choosing as their leaders people with a track record in attracting government, corporate, and foundation grants as well as individual donations. For someone who can raise several millions of dollars annually, salaries in the 60s to 90s are not uncommon.

Finally, I want to emphasize that perhaps the biggest trend today in our economy is entrepreneurship--people starting and running their own businesses. I've seen a lot of young disabled people do this, and some have been very successful. It's risky. The up side is that the business is your own, so you need not worry about discrimination from some employer--you are the employer. The down side is that it requires tremendous commitment, long hours, and the ability to persevere through several years of low earnings before the business begins to pay for itself.

The opposite side of the coin is also worth investigating. Here, we are looking at jobs to avoid. I would put at the top of my list federal, state and local jobs in social work, counseling, and other "human services" fields. Funding for these programs is very tight already. Caseloads are often overwhelming. Morale is low. And this may surprise some of you, but I have seen many people in these fields, socials works, VR counselors, and special educators, who are not disabled exhibit some of the most negative attitudes toward hiring disabled people that exist anywhere. These people tend to regard individuals with disabilities as clients, patients, students--but not as co-

workers and surely not as bosses. The traditional advice to young people with disabilities--to, in effect, "work with your own kind"--is advice that probably has hurt more people than it has helped.

When young people with disabilities tell me today that they'd like to help others who also are disabled, I generally tell them that they have a noble and fine sentiment--but to do that work on their own time, on a volunteer basis. I suggest they go into some other line of work, make a good living, and use their money and time to contribute to others who are disabled. This may be an overreaction, but it is based upon more than 15 years of watching human-services fields. Take examples. To this day, neither Gallaudet College nor NTID, the two major colleges for deaf people, ever has had a deaf president of chief officer. To this day, only a handful of state VR directors or top managers are disabled. To this day, only one or two state or local special education agency heads are disabled.

Also as the top of my list: teaching. While the baby bust generation shows some signs of nearing its end--there is an up-tick now in births, especially to older women--support for education continues to be modest. Salaries are low, pressure is high, and society increasingly looks to the schools to solve its problems, including, of course, drug abuse. I've seen little evidence that school districts are prepared to make the job of a teacher more rewarding, financially or otherwise. In colleges and universities, the combination of the baby bust generation (low enrollments), high costs, and large numbers of tenured faculty make teaching an insecure business at best for most young people.

For people who want to teach, probably the best advice is to go into corporate education and training programs. These in-house trainers run seminars ranging from one hour to several weeks in duration. Salaries are good, from the 20s to the 70s. The good ones then leave, to join outside firms specializing in corporate training, where salaries can go into six figures. Corporate training has everything public school teaching does not: low pressure, high salaries, public esteem and prestige.

Summary

Competitive employment for transition-age youth is a mixture of opportunity and challenge. Entry level jobs are plentiful and in fact easy to get. There is a temptation to take those kinds of jobs. After a few years, however, it becomes clear that these fields over very little security and less advancement. As special and vocational educations, what should you do?

Probably the best tactic is to help those individuals who have limited potential to prepare for and get the readily available entry-level jobs. But for students who really have a change to build a rewarding career, you need to steer them away from the temptation of taking the first job offer and guide them into fields where they have the best changes of making a living while enjoying their work.

I would strongly encourage you, too, to take full advantage of the fact that there are fewer young people than available jobs in many communities. Use this demand for workers to negotiate for job training programs, reasonable accommodations, promotion potential, and other benefits for people who place with those employers. For each disabled person you help to move up in a company, the job that individual left becomes available for another placement.

Commentary: Competitive Employment Trends and Issues

Marty Markward

Visiting Educational Specialist
Office of Career Education for Special Populations

In his paper, Bowe presented three trends/issues about competitive employment from the perspective of supply and demand economics. He discussed the size of the transition-age population, the competition of the transition-age population in the workplace, and the types of jobs available to them. He summarized his discussion in a succinct fashion providing the reader with a challenge for the future and several suggestions for a general course of action to improve employment opportunities for transition-age individuals with handicaps/disabilities.

Bowe's perspective in the context of supply and demand economics provided a refreshing analytical approach to the problem of competitive employment for transition-age individuals with handicaps. This "big picture" perspective contained a flavor of both optimism and challenge; this combination of ingredients was necessary to stimulate problem-solving on the part of the reader.

When discussing the size of the transition-age population, Bowe devoted much time and detail to his rationale for using the statistics from the Current Population Survey (CPS) versus those from the Department of Education. Those reasons given for not using the statistics from the Department of Education (e.g., inaccuracy of child count, inappropriate labeling process in some cases, and poor categorization of age groups) seemed valid based on this author's own experience as a practitioner. Bowe's use of the CPS statistics resulted in two deductions regarding size: (a) by comparison to the total population of individuals with handicaps, the size of the transition-age population is small, and (b) in relationship to the size of the population, the service delivery system "should assemble resources needed to help these people to make the transition from school to work. If not, we face some real problems in our service delivery system." Bowe's statement regarding the service delivery system seemed nebulous. A statement of such importance may warrant more discussion about the strengths and weaknesses of our past, current, and future potential delivery of services to the transition-age population with disabilities and handicaps.

In regard to competition, Bowe delineated several important trends: (a) supply in favor of transition-age individuals with handicaps, (b) jobs being generated, and (c) competition relative to locale based on employment statistics. Bowe encourages the educators to view "the trend as your friend," however, there was little elaboration on this topic relative to understanding the "trend" as this understanding related to research, practice, and advocacy on the part of the reader.

According to Bowe the real challenge is helping transition-age youth "to get better, more secure, higher-paying jobs." He tended to de-emphasize the fact that there still remains a major challenge to help a large portion of this population find <u>any</u>

jobs. The disincentives to work are created by the benefits structure of social welfare policy and the labeling aspects of our public education system.

Bowe directed the reader to focus attention on higher job expectations for the transition-age population. This point was an important one to make. He also provided the reader with information about employment trends by identifying potentially good job opportunities and ones to avoid when counseling, educating and training transition-age individuals with handicaps.

In sum, Bowe's paper was dynamic in regard to his perspective and his optimism. He shared with the reader relevant, valuable information about competitive employment trends and issues related to transition-age individuals with disabilities and/or handicaps. Although Bowe informed about "what" the trends and issues are, his paper seemed to lake the "how" to utilize the trends and issues relative to practice, research, and advocacy.

Chapter 3

Contemporary Issues and Future Trends that Impact on Employment of People with Handicaps

Henry McCarthy, Ph.D.
Rehabilitation Counseling Department
Louisiana State University, New Orleans

Contemporary Issues and Future Trends That Impact on Employment of People With Handicaps

From the chambers of Congress to the grassroots of rural America, the issues associated with increasing employment opportunities and enhancing employment outcomes for all citizens are of critical and widespread concern. For persons with disabilities, as well as their personal and professional advocates, this is not a rather recent reaction to the unanticipated consequences of economic recession or international competition that has shut down factories, farms, and oil fields. Rather, it represents their long-standing struggle to enter and be recognized as equals among the ranks of the workforce and thereby to participate in the mainstream. Thus, the agenda at hand--to address issues of employment for persons with disabilities--is clearly timely. Given the emphasis on this population that has been allotted more than its share of employment barriers and less than its share of attention from labor policy makers, the picture we seek to capture may more appropriately be termed a puzzle.

The Framework of Target Groups and Influential Issues

The focus of this paper is to develop some prominent themes and observations for educators to deliberate. If these propositions seem impressionistic, idealistic or controversial, that is in keeping with the perceived parameters of this paper: to move our thoughts as far upfield as our talents will take us within this arena of analysis and debate. Hence the issues are selective but, hopefully, representative. The participants, however, are identified by virtue of the vocational (re)habilitation and transition-to-work process; namely, (a) the disabled community which encompasses people with disabilities (especially young adults), their families and advocates; (b) the service-providing communities from the education and rehabilitation systems; and (c) the employment community toward which the transition is directed. The domains selected for consideration of their impact constitute recent developments and future challenges in five major areas of our society--demography, economy, legislation, public opinion, and technology. Within these domains, manifestations and implications of trends are identified sequentially for each of the three designated groups that participate in the transition-to-work process. Capsulized statements of the issues are presented in Table 1. After briefly describing each issue, estimates of its consequences for shaping the employment opportunity structure for persons with disabilities will be given.

Our society and the world at large are proliferating with change. Peter Drucker (1985), the organizational management expert, has predicted that the crises brought on by rapid changes in society will pose an even greater threat for public-service institutions than for private-sector enterprises. As someone employed by the public sector and interested in improving it through my professional activities, I was at first disconcerted upon reading this projection. While preparing this paper, however, I was reminded of something else I had read, about the Chinese character for crisis. It is a combination of the symbols for threat and opportunity. Hopefully, by examining our situation with both a realistic view and an affirmative vision, we shall, like the Chinese, arrive at an understanding of each crisis as a sign not only of threat but also of opportunity.

TABLE 1

ISSUES SHAPING THE EMPLOYMENT OPPORTUNITY STRUCTURE, PARTICULARLY FOR PERSONS WITH DISABILITIES

	DISABLED COMMUNITY	EDUCATION/REHAB COMMUNITIES	EMPLOYMENT COMMUNITY
DEMOGRAPHY	Changes in cognitive and cultural characteristics of client populations	Expanded networks of influence and practice	Feminization of corporate cultures
ECONOMY	Financial disincentives to work	Budget cuts to human services	Cost containment pressures
LEGISLATION	Programs and policies targeted to severely disabled and transition populations	Professional credentialing controversies	Inequality of equal opportunity efforts
PUBLIC OPINION	Normalization and integration movements	Public accountability pressures	Weakened ethic and socialization for work
TECHNOLOGY	Computers as personal prostheses	Computers as occupational tools	Shift from an industrial to an information and service labor market

Demographic Shifts in Client, Practitioner, and Workforce Populations

Much has been noted about the changing demography of the U.S. population and various subgroups within it. For example, the decreased birthrates since the end of the baby boom, combined with improved health care that has extended the average lifespan, have resulted in a much larger older population in actual and relative numbers than ever before. What is not so often apparent or discussed is the ramifications of these changes, except by policy analysts (e.g., DeJong & Lifchez, 1983). The following section suggests three situations brought about by demographic change that should be understood and responded to by those involved with vocational preparation and placement of persons with disabilities. They are: (a) the questionable appropriateness of many of our service approaches that were developed within a therapeutic ideology and for a clientele population that are not typical of today's; (b) the expansion of the effective sphere of influence of rehabilitation philosophy and practice into new services territories; and (c) the "deregulation" of the workplace, which has become more diverse, particularly more feminized.

Out-of-step, hierarchical service approaches

Frank Bowe's (1983) compilation and interpretation of disability data from the Census and Current Population Surveys have provided us with urgently needed information for program projections and policy review. In addition to these analyses by age, race, and sex, we need also to consider the cognitive and subcultural characteristics of contemporary client groups (PSI International, 1984). Vocational rehabilitation techniques were originally imported from the previously established disciplines of secondary vocational education and college counseling psychology. Recipients of service from these disciplines tended to have rather normative acculturation and tolerance for the competitive standards and verbal testing characteristic of academic environments. Given the cognitively impaired, socially disadvantaged or multiply handicapped status of many of today's clients, we need to evaluate the appropriateness and adequacy of our counseling and training philosophies and strategies. Without such scrutiny, less effective or actually dysfunctional interventions are likely to be implemented. The result is loss of opportunities for clients' career development and for updating of professionals' repertoire of helping skills.

Another quality of agency services that warrants reconsideration by practitioners is bureaucratic structure and standardization, which many would simply call rigidity. Several of Naisbitt's (1982) "megatrends" share the common theme of a shift away from authoritarianism. These include: movement from institutional help to self-help, from hierarchies to networking, from centralization to decentralization, from dichotomies to multiple options. In rehabilitation, these emphasis are evidenced in the growing popularity of job-hunt clubs (Azrin & Besalel, 1980), placement consortia (Nelan, 1984) and community group homes. nevertheless, the categorical and hierarchical nature of much of our service structure remains ingrained. It is reflected in ways that are both interpersonal (such as the typical status difference between providers of special education or rehabilitation services and the consumers) and programmatic (such as inflexible sequencing of services). With regard to the latter, for example, the experiences, of Wilcox and Bellamy (1982) have brought them to question the advisability of always providing on-the-job training after career

exploration and skill training when it might serve some clients as a good preparatory orientation of these programs.

Expanded networks for education and rehabilitation practitioners

Another demographic shift worth noting is the distribution of settings in which education and rehabilitation professionals are now working. This is due to a combined decrease in demand in some settings (e.g., due to deinstitutionalization) and increasing or new requests for services in other sectors. Most notable are the appearance and acceptance of rehabilitation practitioners in industry (Shrey, 1982) and schools (Szymanski, 1984), turfs previously not tred by them as employees. Companies are interested in preserving the investment they have made in employees who have sustained a work injury or disabling condition (Beaudway, 1986). Programs to rehabilitate and return these workers, preferably to their former employer, represent the fastest-growing job opportunity in the rehabilitation field. Similarly, corporations are recruiting dynamic educators whose skills are easily transferable to training positions created as firms both retool and reinforce their staff in order to keep abreast of technological advances and employee expectations for meaningful quality of worklife. To be sure, some of their career mobility is a desperate exodus from the experience of job stress and burnout associated with human service work in traditional settings; more often, it is prompted by an enterprising spirit that seeks more creativity in or control over their work. Innovative exchange programs also exist that allow personnel from the public service and private corporate sectors to spend time in the other setting to update their knowledge and share a fresh perspective on mutual challenges (Phelps & Treichel, 1983). Certainly, the consequences of these inroads directly expand the opportunity structure for the education and rehabilitation professionals who take advantage of them. But they also indirectly and positively affect their consumer populations, who thereby gain access to professional helpers who are more broadly experienced and better connected to a network of colleagues both inside and outside the system.

Diversification of the workforce and resulting "deregulation" of the workplace

Not only has the demographic composition of the rehabilitation client population changed over the past decade or two, but also that of the general workforce. The biggest change has been in the number of women who have entered the labor market. This has resulted in what might be termed a feminization of the workplace. Gradually, women have been sensitizing business and industry to the concerns of a more pluralistic workforce and asserting their rights as the negotiating tables of the employment community. For example, some corporations have become responsive to the needs of nontraditional workers for flextime scheduling and company-subsidized childcare. These efforts have been positive ramifications for other social groups that previously had been regulated to a marginal position in the laborforce. All this has created less rigid screening criteria because as the workforce becomes more diversified, it becomes harder to retain a traditional mold for some ideal or typical worker. Accordingly, it has made employers recognize and rely on the wisdom of accommodation. The more heterogeneous is the workforce and the more accepting of that diversity is the corporate culture, the greater the consciousness about accommodation and the more likely it is that employers will adopt it as a core of their human resources development strategy (Belau, 1985).

In the past, companies employed personnel managers whose responsibility it was to keep problems at bay. Today's forward-thinking firms realize that workers are their major investment, much more so in most industries than capital investment they make in equipment, materials, and facilities. Thus, they cannot afford to lose these human resources because of legitimate but unaccommodated needs related to physical, mental or social functions. To some extent, accommodation has been narrowly construed as synonymous with hardware solutions to specific problems posed by disability or another deviant characteristics. But actually, accommodation is an attitude that allows for the full expression of human talent; it is a means of securing the right to equal opportunity to participate, not some special privilege for a few who somehow do not fit in (McCarthy, 1987). This broader conception of accommodation is the crux of the labor policies of many European and particularly Scandinavian countries, as well as the developing movement for supported work in the United States (Rusch, 1986; Will, 1984).

Findings from the nationwide study of corporate practices concerning employees with handicaps clearly indicated that the firms most likely to consider and successfully implement accommodations were those which had a philosophy emphasizing the importance of the individual and, interestingly, a notably lower turnover rate (Berkeley Planning Association, 1982). Such qualities reflect not a mere policy of personnel management but a commitment to human resource development. Typically, this approach is characterized by extra efforts to ensure the safety, wellness, career enhancement and self-fulfillment of all employees (Pati, 1985). These goals are manifested in corporate support of carpooling, child care, health promotion, volunteerism, and continuing education for employees; flextime and job-sharing options; and assistance and rehabilitation and programming for troubled employees and injured workers.

Responding to Economic Changes and Challenges

It is impossible to be exposed to any of the news media these days and not realize the considerable changes that have been taking place in our economy. Indeed, one of these is that "our" economy no longer exists. We now operate not in a nationally controlled but in a global economy in which everyone from simple farmers to slick automakers are more threatened by international business than by the competition within their immediate territory. There are numerous other economic issues that might be explored for their relevance to the employment outlook for persons with disabilities. The three selected for our consideration concern: (a) disability benefits regulations that constitute disincentives to pursuing employment for many clients; (b) the current conservatism in Federal fiscal policy and the resulting reduced public expenditure for many disability-related service programs; and (c) counterpart pressures within the private sector for cost containment in certain internal corporate functions (such as personnel training and disability management) which, actually, can provide new opportunities to the education and rehabilitation systems to be more serviceable to business and industry.

FINANCIAL DISINCENTIVES TO WORK

For a segment of the disabled community, the most pressing concern is whether they will be able to survive financially and, indeed, literally, when they become employed and have to relinquish their disability benefits. The dependency-reinforcing regulations attached to Medicaid and SSI/SSDI benefits routinely cause persons to forfeit life-sustaining, expensive medical and attendant care, once their income exceeds a very modest level. Similar disincentives are faced by a larger proportion of the disabled community who have less severe functional limitations but indefinite needs for financial assistance and medical services that will only be met contingent upon their continuing to prove that they cannot work. Provisions have been introduced under Sections 1619 (a) and (b) that are intended and anticipated to reduce disincentives in Social Security regulations (Conley, Noble, & Elder, 1986). Only 62% of the facilities serving developmentally disabled clients that were surveyed by Kiernan, McGaughey, and Schalock (1986) were, however, aware of these provisions; and less than one quarter of their facilities sample had taken advantage of them.

Oddly enough, clients disincentives to work are frequently discussed as a motivational problem. Really, however, "disincentives depend on rational people making rational choices in light of the alternatives available to them" (Berkowitz, 1985, p. 30). Thus, they can be adequately addressed only at a systems level by examining the impact of the inflexible either/or choices that the regulations tend to offer. Instead of emphasizing strategies of "remotivating" people to accept any work under precarious and inhospitable circumstances, we would better invest our energies in revamping our definitions of work and the contingencies for participating in the commonwealth. As Leontief (1986), p. 24) expressed it: "In redefining the ways in which we differentiate between work and leisure, in planning new models for income distribution no longer solely linked to economic contribution, primarily, in re-assessing the ways in which we evaluate social contribution, our society must speak fully and freely...if we are not to become a handicapped society, lumber with a recipe for disaster instead of one for social development." Recognizing the rising tide of structural unemployment even in highly developed countries today, British critics of current rehabilitation policy have proposed options for establishing some form of a "social wage" that would more broadly recognize human talents and contributions than does our dichotomy between employment and unemployment (Comes, 1984: Croxen, 1984).

Reduced public funding of human service programs

Directly relevant to publicly funded occupational training and social support programs are the fiscal priorities and consequent budget cuts of the Reagan Administration's policies and proposals (Duncan, 1987). Local governments and the private sector are expected to "pick up the slack" from decreased support for social programs wrought by increased expenditures on military defense. Also, for school systems, local tax propositions in many areas have severely curtailed the monies allotted to special education programs. The optimistic, opportunity side of this crisis situation is that it has served as a needed impetus for many nonprofit organizations that had previously relied exclusively on public-sector support to cultivate private-sector sources of income (McCarthy, 1986a). This not only expands their fiscal

support network but also encourages outreach that generates new colleagues and consumers for their service activities.

Pressure in the private sector to control operating expenses

Several circumstances in the contemporary business world would have combined to create considerable pressure for cost containment within corporations. Those most directly impacting on the field of rehabilitation include the exploding costs of health care, workers' compensation and long-term disability benefits (Galvin, 1986; Schwartz, 1984; Victor, 1985). The resulting financial strain has greatly increased corporate interest in obtaining (or providing their own) disability-prevention and rehabilitation services to retain the experiences workforce in which they have invested (Eckenhoff, 1984; George & Hembree, 1986). Another rehabilitation concern in the workplace is employee alcoholism, substance abuse, and similar problems that, if untreated, will lead to termination, an outcome as costly and undesirable to the company as to the worker. Employee assistance programs organized to respond to these workplace wellness needs have been responsible for the important introduction of rehabilitation principles as well as practitioners into the corporate setting (McMahon & Shaw, 1983). Furthermore, top management in the more successful corporations are emphasizing unprecedented commitment to the overall strategic development and continuing education of their human resources (Shaffer, 1986). But even the most basic implementation of personnel recruitment, assessment, and training are becoming so expensive for firms that those responsible for these activities are more than ever interested in developing trusted relationships with external organizations that can refer already screened and qualified job applicants (McCarthy, 1985). This represents a significant opportunity for educational and vocational rehabilitation facilities to secure the patronage of the private sector simply by marketing and performing well the training and placement services they are designed to do.

Impact of Legislative and Political Programs and Priorities

Much of what shapes the employment opportunity structure is a host of indirect, interacting factors that comprise the complex context within which the labor market buyers (employers) and sellers (workers) operate. Of course, this is not an entirely open and negotiable marketplace. Rather, it is in part reactive to laws, policies, and regulations that serve as behavior controls or incentives. From among several relevant legislative and political forces, the following are selected for examination: (a) legislative programs and priorities that favor specific populations within the disabled community; (b) political activities of rehabilitation professional organizations designed to promote their credibility and credentials; and (c) employer compliance with the letter and spirit of the equal employment opportunity and affirmative action legislation protecting qualified handicapped persons.

Programs and priorities favoring specific segments of the disabled population

Certain program priorities and pieces of legislation of the past decade have greatly impacted the prospects for career development and community living of persons with disabilities. Foremost among these is, of course, the Rehabilitation Act of 1973 and its amendments which opened the door for providing independent living services and which mandated that service priority be given to severely disabled individuals. More recently, the Office of Special Education and Rehabilitation Services

(Will, 1985) has launched an intensive professional education and grants campaign to promote successful transition from school to work with, if necessary, supported employment opportunities for all persons regardless of the severity of their handicapping conditions. Besides the obvious benefits of generating funds for programming and having the enforcement power of the law, these legislative and executive acts offer another important advantage. Specifically, they codify humanitarian values that make a statement of societal responsibility for providing equal opportunity to achieve vocational self-actualization and meaningful social participation. The impact of these legislative enactments is widely appreciated by the disabled community. Indeed, results from extensive interviews with 1,000 persons with various handicaps led to this conclusion concerning legislation relevant to their status that was passed since the late 1960s. "There is strong support for the role played by federal government among most disabled Americans. The strength of this endorsement for a federal program is unsurpassed since the Harris firm began measuring public support for federal programs and laws" (Harris & Associates, 1986, p. 10).

This is not to imply that we can rest complacently on our laurels. Phelps (1986) summarized how, during the past two decades since the legislation of equal educational opportunity, the variety of training institutions in this country "have encountered serious difficulty in attempting to integrate and serve handicapped youth...have largely neglected efforts to include persons with handicaps" (p. 15). Moreover, efforts continue on the part of the Reagan Administration to misrepresent the purpose and curtail the enforcement of affirmative action legislation, and to abolish the minimum wage while unions and some disability organization (e.g., American Foundation for the Blind) are trying to eliminate the exemptions to it that sheltered workshops enjoy. Our continuing energies should be applied to counteracting the misunderstanding of the rationale and outcome of social equity policies that is reflected in attitudes that "all they want is a handout" and the backlash that such feelings generate. If anything, our social policy and responsibility need to be invigorated, not undermined.

Credentialing controversies in the rehabilitation profession

Recently, there has been an upsurge of debate and posturing about credentialing of rehabilitation counselors. Aside from petty protectionism, this is a legitimate concern for any profession, particularly when, as is the case with rehabilitation counseling, it is a relatively new field which is not yet well known or clearly understood by the public at large (Victor & Viscardi, 1983). Furthermore, it is not currently controlled by uniform licensing procedures. In part, this limits rehabilitation counseling services from being accepted for reimbursement from certain third-party payors in some of the new service arenas (such as industrial rehabilitation) that are attracting many practitioners these days. Thus, there is growing momentum to establish licensure requirements and recognition. Alongside the credentialing movement is a push for specialization into sub-fields of the profession. While the rhetoric supporting these developments argues that they will bolster the profession's credibility, they are more certain to increase the coffers of the credentialing industry, such as organizations that offer courses to prepare candidates for certifying examinations. For years, every state has had teacher certification which as not always assured the quality of our educators or lent credibility to the profession at large.

What, then, does all this mean for clients and their employment prospects? Supporters of licensure claim that it will ensure better quality services by setting standards for entry qualifications and continuing education of practitioners. Consumers, however, tend to place greater value on counselors' personal experience (e.g., with disability or in the world of work outside of the rehabilitation system) than on their academic background (George Washington University, 1980). If specialization results in more experiences and informed service providers who, furthermore, are more easily identifiable, thereby improving the accuracy and efficiency of referral, then clients will be better off. If, on the other hand, specialization only serves to solidify and justify a labyrinthine service system, then we can all do without further fragmentation of the profession.

Inequality of equal employment opportunity (EEO) efforts

Administrative and legal mandates designed to promote social equity are typically controversial because they upset the status quo. Certain ones, such as equal employment opportunity laws, have suffered as well from poor public understanding of their rationale. For example, it is relatively easier for people to comprehend how segregated schools can result in clear inequities for traditional disadvantaged groups. Furthermore, the mandated remedy requires only that the protected class be allowed full admission to the same schools as all other students. In the realm of employment, however, resolution of the inequity is strategically less obvious. Not everyone is eligible for, or even interested in, any particular occupation or job, so it is not just a matter of guaranteeing everyone the same options by opening doors and dismantling segregation systems. Moreover, the solution to employment inequities is based not merely on the acceptability of current options and outcomes, but on compensating for the cumulative and enduring effects of past discrimination. Consequently, the legislation not only prohibits employers from making discriminatory evaluations in hiring and promotion, but also stipulates that they take special steps (affirmative action) to attract, employ, and advance applicants from the now-protected class. In the case of EEO legislation for people with handicaps, the situation is further complicated by the fact that the determination of what qualified as a handicap is not definitive and varies across different state and federal jurisdictions. This imprecise definition of handicap has been a consistent complain of employers (Ellner & Bender, 1985) who must rely on court decisions that continue to reshape the parameter of this protected class. Recent disputes contesting handicapped status under this law have involved persons with Acquired Immune Deficiency Syndrome (Fisher, 1986; LeGrande, 1986), a very controversial condition and public health problem in itself that typifies several complex issues that the employment community and society at large are likely to continue to face in the future.

Given these considerations and the inevitable subjectivity of personnel judgments, it is not surprising that EEO regulations can be violated by attitudes and actions ranging from perfunctory implementation to outright sabotage. Crucial policies are at stake, not just some meaningless bureaucratic procedures of the kind that typically get skirted. In addition to concerns about compliance, there is the fundamental question of whether the provisions of Section 503 of the Rehabilitation Act of 1973 contain the necessary clout to improve employers' EEO behavior. Advocates from and for the disabled community have consistently argued that without the structure of employment quota goals and timetables like the programs for racial

minorities and women, EEO programs for handicapped individuals have no effective force. Unfortunately, there is more than a little evidence that EEO programs for handicapped individuals are a low priority compared to those for women and racial minorities. For example, a study reported in a major personnel journal that analyzed corporate affirmative action did not even mention, let alone include in its investigation, laws and programs dedicated to handicapped individuals (Vernon-Gerstenfeld & Burke, 1985). The status and protected rights of students with disabilities were similarly disregarded in virtually all the major critiques that were otherwise comprehensively completed (Lilly, 1987; Pugach & Sapon-Shevin, 1987). A major conclusion of the recent Harris poll of employers representing 921 U.S. corporations concerning their efforts and attitudes toward hiring persons with disabilities reads: "It is clear that most managers give the recruitment of disabled people a very low priority, and that little societal or business pressure is brought to bear on them to give it a higher priority" (Harris & Associates, 1987, p. 16). This is yet another reflection of the powerlessness of persons with disabilities as a minority, a crucial subject cogently addressed by Stubbins (1987).

Changes in Public Perceptions and Expectations

The closely interpersonal nature of education and rehabilitation services is such that providers and consumers tend to spend most of their time together in self-contained setting sin which their mutual influence on each other is obvious. Because of this, it is easy to forget periodically how much each group is also influenced by the contemporary climate and normative trends of society at large. This final section discusses a prominent aspect of the attitudinal Zeitgeist for each of the three communities whose roles we have been examining. Specifically, the themes are: (a) the improved perception and integration of persons with disabilities in society; (b) the accountability pressures being applied to educators and rehabilitationists from a dissatisfied or more assertive consumer community; and (c) the relaxation of the traditional attachment to the work role and to a particular employer as the chief source of one's identify.

Effects on normalization and integration movements

Although there is still considerable need for informational and affective education about people with disabilities, their rehabilitation and their employability, it is important to acknowledge the strides that have been made in the past two decades with respect to consciousness raising about this minority. A number of forces have contributed to this. One has been the concerted efforts of parent and professional advocates working in conjunction with self-advocates in the disabled community to dispel myths, stereotypes, and discrimination that insidiously separate people with disabilities from those "temporarily able-bodied" and to promote feelings of sensitivity, identification, and respect. The normalization (Wolfensberger & Tullman, 1982) and independent living movements (Freiden, 1980) represent the major campaigns conducted for these purposes. A principal goal that they are pursing and have been accomplishing is to create positive image of and interaction with those whose physical or mental characteristics had excluded them from a life of dignity and equality in the mainstream. In addition to these specific advocacy efforts, recent products of the popular media and entertainment industry have brought new life and color to the

presentation of disability. Numerous films and plays dealing with disability issues (e.g., "Coming Home" and "Children of a Lesser God") have won widespread popular acclaim. Hardly a week goes by without a TV movie portraying a heroic character with a disability. Although such features are less than ideal for promoting realistic attitude change, they may at least balance out the images of pity and dependence depicted by the traditional fundraising telethons. The ripple effect of all this is to convince people, like prospective employers or neighbors, that individuals with disabilities seek and enjoy active work roles and productive lifestyles that challenge their abilities and fulfill their aspirations. It leads to employers' developing acceptance and more appropriate expectations of job applicants who happen to have a handicap; and to the latter's visible presence and meaningful participation in all community settings.

One dimension of the general public's attitude toward persons with disabilities that is very infrequently discussed is the notion that they are disadvantaged but deserving of favorable (though sometimes also infantilizing) treatment. This is in contrast to other groups such as those in poverty or prison, those without homes or control over their addictions, who are perceived as disadvantaged but less (or not at all) deserving of understanding intervention. It is noted here for two reasons. First is that such a perspective to some extent facilitates the job-seeking efforts of disabled clients and their counselors, relative to other groups that encounter discrimination. However, even within this relatively less stigmatized group, there is a hierarchy of acceptance, with physically disabled persons higher in acceptability and those with social deviations such as mental illness, retardation and substance abuse at the bottom of the rankings (Combs & Omvig, 1986). Secondly, it reminds us of our responsibility to advocate broadly for elimination of attitudinal and systemic discrimination, and not simply "sell out" on our specific agenda. John Donne's message that "No man is an island" for "Everyman's death diminishes me" continues to pose a challenge not only to our personal but also our professional tunnel vision.

Public accountability pressures

With a kind of ironic twist, there is both a finger of blame and a helping hand evident in the current consumer reaction to the education and rehabilitation communities. A Nation at Risk (Commission on Excellence in Education, 1983) is only one of almost a dozen recent critiques of our educational system that has manifested this ambivalence. Specifically, there are popular and legislative moves, on the one hand, to tighten the curriculum and examination requirements for teacher certification and, on the other hand, to elevate the prestige and pay level of the profession. In general, it is expected that these changes will invigorate educational opportunities and outcomes throughout the country and it is hoped that this will contribute to America's regaining its "competitive edge: in the international economy. However, to the extent that students with disabilities are not schooled in the mainstream, they are unlikely to reap the benefits of enhanced instruction, facilities, or programming brought about by educational reform. Indeed, as cogently argued by Sleeter (1986) in her parallel analysis of the post-Sputnik educational reform movement of the late 1950's, marginal or special students may end up handicapped by the manipulation of the system. Two observations about the current reforms need to be considered. First is the telling fact that consideration of special education was not given in any of the major educational system evaluations, so that reform efforts will not be targeted to the established needs of this sector of the system. Second is the

movement's trend toward increasing the rigor of educational standards, a strategy that might militate against the individual accommodation rights of students with special needs and administrative acceptance of advocacy efforts by their teachers and parents.

With respect to the field of rehabilitation, there is a counterpart but not nearly as widespread and publicized consumer dissatisfaction with the primary service delivery system that is promoting self-evaluation and change. More than 1,000 private-sector rehabilitation companies with annual sales of over $250 million dollars have sprung up during the past decade (Pati, 1985). This phenomenal rise in the for-profit rehabilitation industry is a reflection of one consumer group's (employers) willingness to pay for the expedited rehabilitation of their injured workers rather than deal with the delays and bureaucracy of the public rehabilitation system. Peer counseling and self-help (Akridge, 1986) represent another service stream that has risen dramatically in the past fifteen years or so as the disabled-consumer community demands a supplement or substitute for the inadequacies of professional counseling. Even clients at rehabilitation facilities more often seek and successfully find employment through informal sources (such as family, friends, and applying to a firm without knowing of an opening) than through agency job placement services (McCarthy, 1986b).

Weakening of the work ethic and work socialization

A generation or two ago, people worked for the same employer for 40 years and were rewarded with a gold watch for their loyalty. Today, their grandsons and granddaughters consider themselves stagnant (or at least insufficiently upwardly mobile) if they work for more than five years at any position or firm. Their job is what they do after their morning jog and before their creative writing classes, political meetings or whatever their various avocations commitments involve. Clearly, contemporary workers have more commitment to their total career development and lifestyle, which typically means considerably less commitment to their current job and employer. Even at the top, career mobility is sufficient to sustain a sizeable executive search industry. Many larger corporations recognize these value changes and offer a variety of perks, ranging from corporate gyms to tuition reimbursement, in order to accommodate employees' leisure interests and reinforce attachment to the organization. Along with these manifestations of a relaxation of the work ethic there is evident a similar societal shift in young adult work socialization. Parents and teenagers alike consider competitive extracurricular activities more important for growth than early work experience. In many suburban and even resort communities, secondary labor market employers find it hard to get young help, or at least to retain them through the Labor Day weekend demand because students want some weeks of vacation themselves. The relevant consequence of all this for our discussion is that employers have an earnest interest in capturing committed workers. For years, workers with disabilities have been perceived as more dedicated and dependable (Parent & Everson, 1986), presumably because of the greater difficulty they are known to encounter in gaining entry to the job market. This impression still remains among employers who recently rated handicapped employees as a group better than their nonhandicapped colleagues on "willingness to work hard" and "reliability" but, interestingly, not on "desire for promotion" (Harris & Associates, 1987, p. 49). There are some who consider this a stereotype that, however positive, is not without its disadvantages in setting up employer expectations for all persons with disabilities. But

the fact still remains that this perception about people who cope with their handicaps can smooth their otherwise barrier-ridden avenue of access to employment and its opportunities for genuine employer education and awareness raising.

Enabling Technology to Enable Us

Virtually every age group, socioeconomic background and occupational category express a kind of love-hate relationship with high technology: some in each group are hooked on it. The following titles nicely capture this conflict of opinion: "New Keyboard Allows Disabled to Type with Their Eyes" and "Technology Limits Our Experience, Skinner Tells Futurists' Meeting." The proliferation of electronic technologies constitutes compelling evidence of the emergence of the information age as a controlling force in our society, whether or not we approve of it or are prepared for it. Three aspects of the technological revolution are having a particularly significant impact on the employment potential of special-needs populations. They are: (a) the augmentative advantages of computers as prostheses for persons with a variety of functional limitations; (b) the enabling and enhancing capabilities of computers as work tools for special educators and rehabilitationists as well as their clients; and (c) the shift from an industrial to an information and other services labor market.

Computers as personal prostheses

Computer-based and other electronic technologies have vastly expanded the scope of assistive devices for compensating for functional deficits of most handicapping conditions. Robotics, speech synthesizers and optical character recognition systems are a few of the more captivating examples of these developments that are described in several good publications (e.g., Bowe, 1984; Cook, Leins & Woodall, 1985; Hagen, 1984). But most rehabilitationists and special educators have minimal familiarity with the ever-increasing treasure of technological aids for clients, or knowledge of how to access this information. Persons with disabilities themselves are typically as poorly informed as the professionals; worse still, the input of those from the disabled community who are experienced and competent is rarely solicited by manufacturers at the design stages when critical decisions affecting the flexibility and utility of products are made (Scadden, 1986; Schrader, 1984). Furthermore, the cost of many of these aids still remains prohibitive for the vast majority of potential users. These barriers ultimately result in a narrowing of perceived job prospects, lost opportunities to improve vocational, recreational, and independent living functioning, and failure to exploit the advantages brought about by technological advancements.

Computers as occupational tools

The introduction of any innovation is followed by some general resistance to its adoption. Certainly, technology is no exception. Added to this, however, are problems associated with technology's being perceived as cold and impersonal, as offering less autonomy and stimulation at work (Kaman & Bloom, 1985). Among education, rehabilitation and other social service workers, these perceptions hold event greater significance because of the strong and sensitive "people orientation" that they like to feel and project about their profession. Thus, despite numerous available technological tools to assist them in the VR assessment and job placement processes,

there is quite little expertise or evidence of utilizing them among rehabilitation practitioners (McCarthy & Gottlieb, in preparation).

Another aspect of the computer revolution is the rise of telemarketing and date services, which offer a new set of opportunities for working at home, in "high tech cottage industries" with microcomputers networked to the mainframe at the corporate office (Crimando & Godley, 1985; Schwartz, 1984; Toffler, 1980). The undesirability of these options has been argued by some persons who consider it merely another way of perpetuating the isolation from the mainstream traditionally experienced by people with handicaps (Brown, 1984). Similarly, there are numerous counselors who disparage all interest in self-employment by clients, ostensibly objecting to the social segregation it perpetuates on a long-ostracized minority (PSI International, 1985). As a result, certain clients have been denied their freedom of choice to work outside of a formal organization, a choice which might well have earned them an income with which they could have afforded truly to socialize and travel. For persons currently handicapped by lack of accessible and affordable transportation alternatives or persons who simply prefer to pursue an independent entrepreneurial or home-based career)as does an even larger proportion of the general population, particularly professionals), the home-based and self-employment options are definitely favorable developments.

Services and silicon chips supplant the smokestacks

Futurists have predicted that only 10% of the workforce in the year 2000 will be blue collar because computerization and robotics will create new demand for white collar jobs and eliminate many labor positions (Staff, 1985). Already over the course of the past decade, there has been a substantial shift from an economy based on heavy industry to one based on information and service enterprises. This is altering the nature of occupational assets, requirements, and routines. Physical strength, stamina, and dexterity are being replaced by cognitive and social capacities for manipulating symbols and motivating people, or for serving the eating, cleaning, and other subsistence needs of the expanding technical and professional population. The rise to the light-touch information industries should bode well for VR clients whose only limitations are physical. However, it is other client groups (e.g., brain damaged, learning disabled, psychiatric) that currently represent the larger numbers and greater job-placement challenges for the rehabilitation system. These are the very clients whose problematic mental functioning is likely to leave them screened out of the expanding electronic data processing fields, despite the potential of persons with low intellectual functioning to work with computers (Lam, 1984; Scadden, 1986). Consequently, these clients get funneled into the mushrooming service occupations such as office cleaning and food service. For many clients, these are appropriate and needed jobs. However, as typically part of the secondary labor market, they have definite drawbacks in lacking satisfactory wage structures, job security, and promotional opportunities.

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Commentary: Contemporary Issues and Future Trends that Impact on Employment of People with Disabilities

J. Patrick Decoteau

Graduate Assistant
Graduate Programs Office, College of Education Populations

The time is the Fall of 1986. The place is the Levis Center on the campus of the University of Illinois at Urbana-Champaign. The occasion is a forum entitled, "School-to-Work Transition for Handicapped Youth: Perspectives on Employment." The task is to deliver the opening key note speech in such a manner as to set the tone for the forum, challenge those participating, and most important, evoke a sense of excitement about a timely topic. This is the context for which Henry McCarthy creates his keynote address. It is the content of his address, his conceptualization of the contemporary issues and future trends that impact on employment, that is the focus of this commentary.

Conceptualizing key issues and trends that impact employment for persons with disabilities is a monumental task. Beginning his address, Dr. McCarthy reminds the forum audience that those in attendance represent communities with major roles in the vocational (re)habilitation and school-to-work process, such as (a) the disabled community, their families, and advocates; (b) the service-providing communities from the education and rehabilitation systems; and (c) the employment community toward which the transition is directed. He then selects the domains of demography, economy, legislation, public opinion, and technology. Out of each domain he identifies contemporary issues and future trends which, he argues, will influence employment opportunities for those involved in the school-to-work process. The result is a matrix presented in Table 1. On first glance at the table, these nebulous issues appear unconnected. But a second perusal finds them to be somewhat like the Chinese character of crisis...a combination of the symbols for threat and opportunity.

A good example of the "crisis" is represented by the domain of economy. For the disabled community, Dr. McCarthy acknowledges the disincentives present in society that, if not overtly then covertly, influence the disabled in not actively seeking employment. Economic trends have also had devastating effects on education and rehabilitation communities due to the heavy shifts from federal to state funding of human service programs. In the employment community, employers are exploring ways to contain their costs connected with employee recruitment and retention. For these three communities involved in the school-to-work process, a sense of "crisis" is offered in that each issue area seems to serve as a block toward employment opportunities, especially for the disabled. Evidence of those communities seizing the opportunity noted by McCarthy include the appearance and acceptance of rehabilitation practitioners in industry and the schools. Additional opportunity may be seen in terms of the emerging possibilities represented by the various transitional efforts currently under way across the country (Decoteau, Leach, & Harmon, 1986).

Dr. McCarthy evokes a sense of crisis and opportunity in the remaining four domains. For the domain of technology, he focuses on the computers' impact upon persons with disabilities (as occupational tools), and upon employers as they shift from an industrial to an information and service labor market. For the domain of public opinion, McCarthy argues that normalization and integration movements have a renewed force, that educational and rehabilitation institutions are perceived as not doing enough, and that there lies in the employment community a sense that there is a weakened work ethic and socialization for work. In the remaining domains, specific issues seem to allude to various possibilities through which those involved in the transition process can seize upon to bring about increased employment for persons with disabilities. Several examples of such proactive thinking might include policy makers seeking ways to eliminate the disincentives that encourage the disabled not to seek employment. In addition, what about the education and rehabilitation communities cooperatively using the employment community to assist in the socialization to work for the disabled?

Concluding his remarks, Dr. McCarthy does not summarize his points. He does not tie an overt connection between his domains and communities. Instead, he challenges those present to keep his conceptualization of the issues and trends in their minds as they hear the remaining forum speakers, for example, the disabled, the employers and those representing the education and rehabilitation communities.

Up to this point in his address, Dr. McCarthy does set the tone for the forum as well as generate some excitement by demonstrating that issues and trends need not be devoid of opportunity for employment of persons with disabilities. It intuitively appears, however, that something is yet missing from these deliberations about the transition from school to work for the disabled. While Dr. McCarthy has aptly taken on the task of representing issues and trends, where is the cohesiveness, the concensus of action among the three communities he himself identified? Is the transition movement a fad, a great experiment, or is it instead some phenomenon in time which has allowed some individuals to seize upon the opportunity presented by the five domains?

Perhaps the insight needed to answer this latter question may be gained by noting the context of time and place of Dr. McCarthy's keynote speech in relation to the evolution of the transition movement. The fact of the matter is that transition from school-to-work activity is not new, but rather a phenomenon only recently applied to persons with disabilities. Too, policy makers have not been given adequate time to assert their legislated efforts: e.g., the first year accountability reports under the Carl Perkins Vocational Education Act of 1984 were not available until 1986. Here at the University of Illinois, the Secondary Transition Intervention Effectiveness Institute is but a year old in its efforts to assess and evaluate the 100+ federally funded transition initiatives (Rusch & Phelps, 1985). However, within the past four months, the Institute has disseminated a number of publications on transition issues (Chadsey-Rusch, Hanley-Maxwell, Phelps, & Rusch, 1986; Harnisch, Chaplin, Fischer, & Tu, 1986; Leach & Harmon, 1986).

What these publications, keynote addresses, and forums seem to provide is a greater opportunity for those involved in the transition from school-to-work process to attend to and share what is going on in the community, in the region, and in the nation. Dr. McCarthy's keynote address is no exception. His speech achieves the goals within

the context for which his address is written. What seems logical for the next step in the transition movement is a forum encouraging critical dialogue about those activities being implemented in the spirit of transition.

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Chapter 4

Fostering Cooperation Between Industry and Special Education in the Education and Training of Disabled Students

Donald M. Clark, Ph.D.
National Association for Industry-Education Cooperation
Buffalo, New York

Fostering Cooperation Between Industry and Special Education In the Education and Training of Disabled Students

Handicapped students need and deserve a full education and productive employment, and business/industry must play a major role in this effort. In return, employers will benefit by bringing into their firms individuals who can be highly proficient and reliable workers, capable of living independently with little or no assistance.

In order to improve significantly the education-to-work process for handicapped students, a formal industry-special education structure and a process must be put in place that centers around reshaping the academic and vocational program in special education so that it is more responsive to the needs of both handicapped students and employers.

In order to understand better the scope of what must be done in facilitating the school-to-work transition for handicapped youth through a joint effort between the private sector and special education, it is necessary first to examine the central purpose of industry-education cooperation and the primary and secondary areas of collaboration between the two sectors. We need to review the state of the practice in industry-education cooperation/partnerships and the industry-education mechanism at the local level that can help further participation of employers in the education and training of handicapped students from the primary grades through post-secondary education.

Industry-Education Cooperation: Its Role as a National Movement

Winston Churchill once said that for every action there is a good reason and a real reason. Applied to industry-education cooperation/partnerships, the real reason for joint action between the two sectors is to further school improvement. This involves a process in which industry's volunteer resources are channeled in a systematic and coherent manner to help schools refocus/reshape their academic and vocational program so that it is more responsive to both student and employer needs. The good reasons for school--employer collaboration are the typical short-term student oriented projects-career exploration, study trips, career days, resource people in the classroom--needed and useful, yet having no impact on school improvement in general or in the long term.

The emphasis in industry-education cooperation is on preparing all students for their economic role, because it is the role that, for the most part, determines where a person works, with whom one associates, where the individual lives, and in many cases, how one votes. Improving the education-to-work process follows school improvement which, in turn, fosters human resource development and contributes to an area's economic development.

Industry-education joint efforts directed at special education have the same goal--improving the preparation for work for handicapped students through the process of school improvement. Although there has been a proliferation of articles, forums, studies, and task force/commission reports on partnerships over the past five years, the real reasons for industry-education cooperation, school improvement, has been overlooked for the most part.

It is ironic that with all the attention given to partnerships in education since 1981, the mismatch between jobs and job seekers continues to grow and the gap between work force requirements and student preparation for work in our schools widens. This situation is better understood when considering the state of the practice in partnerships in education.

- To date, there has been little, if any, effort to connect the two major movements: educational reform (school improvement) and partnerships in education.
- Most industry-education partnership activities in schools are brief and episodic; they seldom run long enough to make a long-term difference.
- Partnerships in education are carried out, for the most part, on an uncoordinated, fragmented, duplicated, unstructured and ad hoc basis.
- Most partnerships involve low levels of investment, limited objectives, and have no impact on school improvement.
- There is a lack of a formal structure, such as an Industry-Education Council and a staff coordinator, which in place, could channel industry's resources coherently into the total school program.
- The rhetoric, commission reports, studies, and forums on partnerships in education focus primarily on short-term student-oriented projects which, as stated previously, have no bearing on educational improvement.

This is a current profile of the national industry-education cooperation movement which has an important message for those in special education--in order to engage the private sector in a coherent manner on a broad front, it will be necessary to establish a formal structure through which industry and special education can work effectively in fostering school improvement and the education-to-work transition for handicapped students.

Before examining the suggested structure, it is appropriate to discuss school improvement applied to special education. There are five key areas in which the private sector and special education undertake joint efforts (these are applicable to the school program in general).

1. Cooperative planning: Joint development of goals and objectives for program implementation and identification of the resources needed to accomplish the stated objectives;
2. Curriculum: Focusing on priorities and curriculum revision to include infusion of career education concepts;
3. Staff development: Comprehensive and continuing inservice training of special education staff;
4. Instructional materials and equipment: Utilizing industry-sponsored materials and donated equipment for classroom use; and
5. Educational management: Cooperative management training programs highlighting the application of business management skills and techniques to the management of special education programs.

These are the substantive components of school improvement--the real reason for industry-special education cooperation--augmented by the student-oriented school-to-work transitional projects and activities.

A Mechanism for Industry-Special Education Cooperation

An Industry-Special Education Advisory Committee is the recommended mechanism or formal structure through which industry's volunteer resources can be accessed and used effectively and efficiently in developing a responsive school program for handicapped students. An Industry-Education Council (IEC) can help facilitate the establishment of this advisory group for special education. The IEC is a broad based mechanism that umbrellas a school district(s) labor market area, or region, composed of the power structure of the business/education/labor/government/professional community. It becomes the major influential advisory voice for improving the quality of education. It serves as the central coordinating alliance for existing advisory groups working in specific areas of an educational institution's academic and vocational program.

An IEC does not replace existing education advisory committees; rather, it strengthens and enhances coordination among these committees and can be the catalyst in helping establish new advisory groups involving industry and school staff such as special educators. Networks of IECs are operational in states such as New York, Arizona, California, Colorado, and Alabama.

In areas lacking an IEC type organization, special educators can, as an option, contact a local Chamber of Commerce Education Committee and chapters of professional groups such as the American Society for Training and Development, Administrative Management Society, and the Sales and Marketing Executives. The alternative to establishing an industry-special education advisory committee, a vehicle for special education staff to engage employers on a broad front in school improvement and school-to-work transition projects is for special educators to continue the fragmented, unstructured, and ad hoc approach to interacting with the business community. Organization, then, is the crucial first step in undertaking a long term collaborative effort with industry to improve the education and training of handicapped students.

Building An Industry-Special Education Alliance Through Training

Frequently overlooked in the current rhetoric, reports, and studies on industry-education partnerships is the requirement for training. Both business and special education representatives need to be trained in planning, organizing, implementing, and evaluating a collaborative effort directed at the education and training of handicapped students.

The National Association for Industry-Education Cooperation (NAIEC), under a grant from the U.S. Department of Education, conducted a three-year training project (1983-86) on "Volunteerism in Special Education Through Industry-Education Cooperation." This project was carried out in coordination with selected sites that had

an industry-education cooperative type organization which was responsible for recruitment, logistics, and a panel discussion on the program agenda.

The focus for the project was on training business representatives in the principles, processes, and techniques for involving employee volunteers in special education programs and services. This project, representing a train-the-trainers model, was the first effort in the nation in preparing private sector coordinators to plan and implement training programs for other employees on volunteer work in special education. A training package was produced and utilized in training workshop sessions. One of the products is A Program Development Handbook for Coordinators of Volunteers Recruitment, which is available through NAIEC.

The Association has continued the training program to include both business representatives and special educators. In addition to preparing private sector volunteers to plan, organize, and implement a long term company program of employee volunteerism in special education, the workshop sessions include:

- training special education and vocational special needs staff and employers in establishing an industry-special education advisory structure/mechanism and joint process involving cooperative planning, curriculum revision, staff development, instructional materials and equipment, program management, and student-oriented transition projects and activities.

- improving the school-to-work transition for handicapped students through industry-special education joint efforts.

All state directors of special education, special needs, and vocational education were sent information on the NAIEC workshop program in May 1986.

The Message to the Business Community

There is a quid pro quo relationship in industry-education cooperation. The schools seek industry's volunteer resources--personnel, equipment, and materials--to help further school improvement, and industry looks to education as the major human resource delivery system to prepare individuals for productive work in an era of intense competition in which increased productivity is a priority.

Employers expect students entering today's work force to have basic skills, employability skills, general scientific knowledge, appropriate work attitudes, work experience (paid or unpaid), an understanding of our economic system, and marketable and transferable skills.

Given the opportunity to acquire the education and training that reflect these requirements, handicapped students can be a vital resource to an employer. They can repay the costs of their preparation for work in our schools through their state and federal taxes once they are employed. Another economic benefit in employing handicapped individuals is the cost savings to corporate and individual taxpayers, if handicapped individuals can attain self-sufficiency, they will not be dependent on social security disability insurance and various social welfare programs.

The emphasis, therefore, is on independence rather than dependence and prevention rather than remediation. Industry has a real opportunity to demonstrate corporate-social responsibility through joint efforts with special education. It gains one

of the nation's most underutilized and overlooked economic and human resources--the special needs population.

A companywide plan for volunteers in special education can be the vehicle for workers in a firm who have handicapped students to lend their efforts to a special education program and benefit from the experience in helping their children.

Summary

Industry-special education cooperation requires organization, a priority on school improvement and training of both business representatives and special education staff. The general state of the practice in industry-education cooperation throughout the nation is reflected in special education today. There is a lack of a coherent, systematic, and cost-effective effort in accessing and using industry's volunteer resources in the education and the training of handicapped students.

NAIEC can help develop an industry-special education alliance at the local and state levels in the previously cited areas of organization, school improvement, and training. There has never been a more opportune time in our history to make things happen in industry-special education cooperation; let's get on with it and provide a long-term solution to preparing handicapped students for productive work. We cannot risk getting drowned in the rhetoric that would perpetuate inadequate and ineffective partnerships.

<u>What NAIEC Is</u>

The National Association for Industry-Education Cooperation is the nation's principal advocate for fostering industry-education cooperation/partnerships in school improvement and economic development. Established in 1964, NAIEC is the national clearinghouse for information on industry involvement in education. The Association believes that industry has a central role in helping education reshape its total academic and vocational program in a coherent, systematic manner so that it is more responsive to the needs of both students (youth and adults) and employers. NAIEC exists to provide this focus.

As a national voluntary non-profit 501(c) (3) organization, it represents a broad base of membership from corporations, trade associations, school systems, colleges and universities, an affiliated network of industry-education councils, state education departments, government agencies, labor organizations, and professional groups.

NAIEC has the experience, credibility, track record, and capability to make things happen. It has received a Presidential Citation and other awards for outstanding work in furthering school improvement and economic development at the local and state levels.

A major goal in NAIEC's Strategic Plan 1986-90 is to promote industry-special education cooperation at all levels.

Commentary: Fostering Cooperation Between Industry and Special Education in the Education and Training of Disabled Students

Annette M. Veech
Visiting Educational Specialist
Office of Vocational Education Research

Dr. Clark, President and Chief Executive Officer of the National Association for Industry-Education Cooperation, presents a valid case for increased collaborative efforts between the private sector and education. The fact that technological advances and the rapidly changing job market have permanently altered the essence of vocational training programs has been widely discussed in the literature (National Commission on Secondary Vocational Education, 1984; Oakes, 1986; Pugach & Sapon-Shevin, 1987). Individual school districts no longer possess the resources necessary to provide quality, up-to-date vocational programs in a variety of fields.

Business and industry in the United States are fighting to maintain a place in the forefront of the worldwide trade market; competition, productivity, and profit equate success in the private sector. Education is also fighting to maintain and improve its stature; students in the United States trail other countries in text scores (Task Force on Teaching as a Profession, 1986), achievement scores have been declining within our own country, and employers are expressing concern about ill-prepared graduates from our nation's public schools. The time is certainly ripe for a collaborative effort in improving the public school system.

Dr. Clark's premise is that a formal structure facilitates the communication between industry and education and is necessary to effect the change toward developing quality vocational programs. This premise is substantiated by the practical consideration that education can no longer afford to react slowly in disjointed measures to private sector advances and shifts. Educators should view established structures as cost-effective, resource-effective, and politically effective vehicles necessary to effect change. These partnerships are means by which formal and informal strategies may be developed in a timely fashion (Copa, 1987).

School improvement is cited by Dr. Clark as the true reason for private-public collaboration. However, innovation and widespread change are slow processes in education (House, 1974). The status quo is extremely important, as educators strive to maintain a traditional power base and control over turf (Moats-Kennedy, 1985). Limited resources are at issue in education, and therefore an imbalance is created in favor of "tradition" and away from creative expenditures of resources.

School improvement is also hindered by the chasm that exists between education and business. Indeed, educators are truly isolated from the world of the private sector; unfortunately, this situation is even more exaggerated for special educators. Vocational educators have historically maintained at least a perfunctory open line of communication with the private sector; conversely, special educators have isolated themselves with a deleterious effect (Lilly, 1987; Pugach, 1987). This isolation only serves to exacerbate the slow innovation-change process inherent in education. Inconsistencies are common between the private sector and education:

discrepancies can be found in curricula, skill instruction and requisites, as well as differences in personal philosophies (e.g., profit motive versus social conscience, organizational goals versus individualized education objectives). These inconsistencies lead to a basic ineffectiveness in communicating about the issues, and what Dr. Clark labels the "quid pro quo" aspects of collaborative efforts.

Special educators are also isolated from other disciplines within education; there is little communication between "regular" education and special education in the literature (Phelps, 1986). Unfortunately, the respective educational disciplines have developed a tunnel vision attitude, to the exclusion of honest appraisals of the literature and strategies utilized in other disciplines. Not only does education need to collaborate with the private sector, but the various disciplines within education need to communicate through consideration of and collaboration on research, journal articles, conference participation and informal structures. Serving to compound this situation is the fact that special needs populations have excessive access to low quality vocational programs, but limited access to high quality programs (Benson, 1987).

It would seem more than feasible, therefore, that special educators must now form effective linkages with general education as well as the private sector, and that the efficacy of these linkages be assured through the use of politically powerful, formalized structures. It is unarguable that the link between education and the private sector is necessary to produce a productive citizenry, to promote the United States' competitive edge in the world trade market, and to finance educational programs, materials, and equipment. With the current emphasis on excellence in education and world trade competition, an increased effort must be organized to keep special populations in the forefront of educational planning. The question, therefore, remains whether the various players involved will utilize formal structures as a political power base to effectively operationalize vocational program planning and delivery for special populations. Vocational educators are recognizing the collaborative dilemma with increasing fervor; special educators must join forces with their professional colleagues in this time of change if they plan to maintain a place on the cutting edge of reform. To improve this nation's educational/vocational preparation programs, the luxury of much-debated and slowly moderated change must now be abandoned.

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Chapter 5

Reflections on the Transition Initiative

Eugene Edgar, Ph.D.
Experimental Education Unit
Child Development and Mental Retardation Center
College of Education
University of Washington

Reflections on the Transition Initiative

The transition initiative is a euphemism currently being used to define the activities surrounding the movement of students with disabilities from the public schools to the community. This initiative has gained momentum from the re-authorization of the Right to Education Legislation (PL. 98-199), the personal emphasis of Madeline Will (Will, 1984), and the support of parents of students with disabilities who came to expect reasonable services for their children since the passage of PL. 94-142. During the re-authorization of the Right to Education Law, testimony was given by numerous individuals as to the importance of evaluating the outcomes of education, not just the process. An emphasis was placed on the importance of ensuring that special education students moved into the adult world (the world of work) with the skills and support needed to ensure their success. Although there has been considerable discussion on other possible outcomes such as independent living and social/recreational skills (see Halpern, 1985), the agreed upon measure of the outcome of special education is employment (Will, 1984). The philosophical underpinnings of this movement consists of strong beliefs in the general notion of normalization (Wolfensburger, 1972) and a reliance on equal protection of the laws through human rights legislation to provide access to intervention programs. The intervention that is to make this all happen is educational technology.

Parents of children served by PL. 94-142 have grown accustomed to society responding to their needs. Indeed, there is little debate that the Right to Education Law is precedent-setting legislation. These parents have become strong advocates for a social system which provides a full array of services and a legal mandate to full participation by the student in the program and by the parent in planning the program. After ten years of such access, parents are less likely to sit by meekly when they feel the system is doing them wrong.

A brief review of these components is necessary in order to understand how the pieces of the puzzle fit together to provide the blue print and energy of the transition initiative.

The Normalization Paradigm

The theories of normalization, originally coined by Nirje (1970) and elegantly promulgated by Wolfensburger (1972), stress the importance of society accepting people with disabilities as valued members of local communities. The blueprint for achieving normalization for people with disabilities calls for creating situations for people with disabilities which accomplish the following: a) age peer activities, b) age peer appearance, c) age peer standards, d) integration with nondeviant persons, and e) avoidance of all separate activities, facilities, and groupings.

Age peer activities

The basic standard of measurement in normalization theory is age peer. Hence, when in doubt about the appropriateness of an activity, consider age peers of the persons with a disability. Age peer activities refer to the "things" people do during the day--attending school, working, and socializing. For people beyond high school age, the appropriate "day activities" are work or training for work. Recreation and

social activities take place with unsupervised peers in a wide range of community settings.

Age peer appearance

Appearance is important, not only for success (Malloy, 1976) but also for social acceptance. One of the basic problems faced by people with disabilities is public stereotyping. One method of overcoming these stereotypes is to avoid all outward appearances that tend to identify people as different. So, hair styles, clothing, types of vehicles (e.g., size, color, and identification symbols), and places of residence, work, or school, must all appear to the public as regular, accepted, and in use by age peers without disabilities.

Age peer standards

Personal standards for persons with disabilities should correspond to the standards of their age peers. Therefore, issues for adults with disabilities such as autonomy, sexual behavior, making personal decisions, and choosing friends should be the same for adults without disabilities. There is human dignity in risk.

Integration with nondeviant persons

Juxtaposition of deviant (devalued) people results in additional devaluing of the people. Thus, persons with disabilities should be fully integrated (housing, schooling, work, recreation) with nondeviant, nondisabled persons.

Avoidance of separateness

The corollary to integration is the avoidance of separate activities or groupings or people with disabilities. Hence, Special Olympics, group homes, and activity centers are to be avoided. Instead, regular recreation programs, open apartments, and mainstream social centers should be used.

The end goal of normalization is to have persons with disabilities be value by society.

Legal Paradigm

A logical companion to the philosophy of normalization is the notion of civil rights and the use of the American legal system to ensure (mandate) access to these rights. Special education has fully adopted the legal paradigm to guarantee access for persons with disabilities. P.L. 94-142 was (and remains) a precedent-setting law as to mandating legal access to services. The Vocational and Rehabilitation Act of 1973 (P.O. 93-112) as amended in 1978 (P.O. 95-602) through Section 504, is the civil rights act for persons with disabilities.

Persons with disabilities and their families are major consumers of legal services. Access to basic human services is gained through legal mandates. using public and private attorneys, all persons with disabilities have the power legally to force their way into the mainstream. Due process hearings, civil rights complaints, and threats of legal proceedings give persons with disabilities access to standard American problem solving--legal recourse. Enforcing legal rights for persons with disabilities is big business and a part of the mainstream American legal community.

Education is the vehicle by which these outcomes will occur. By providing intensive, early, and specially designed education which is appropriate for each student, we will prepare individuals for their proper roles in society. Although education will need to be modified and adapted for individual students, and perhaps "technology" will have to be called on, the basic notions of educational intervention are viewed as the primary mode of intervention.

Although educational thought is represented by a wide range of theories and there certainly is major debate among theorists and practitioners alike, the general paradigm is rather simple. A human is a combination of genetic (heredity) makeup and environmental influences. Manipulation of the genetic structure and the regeneration of nerve cells remain basically outside our current technology. So education is based on the premise that behavioral repertoires, attitudes, feelings, and mental states can only be manipulated through the arrangement of the external environment. Careful thought is given to organizing and sequencing experiences in such a manner that human characteristics are altered in a desired direction. There is absolutely no doubt that current state-of-the-art educational technology will (and does) produce massive positive changes in human beings.

However, most professionals in the field of human services will concede that a number of special education students will require support services after they exit the public school system. Some will require short-term services such as vocational rehabilitation, whereas others may require life-long services. Thus an additional piece of the puzzle is society's commitment to provide ongoing, postschool support services to those individuals who, for whatever reason, are unable to participate fully in typical community life. These services may be funded by either government or private agencies.

Special education technology has been at least as successful as (if not more successful than) "regular education technology." With very few exceptions, a well designed and implemented program of special education, given enough time, will produce competent behavioral repertoires even in seriously involved individuals. I do believe that education is effective in teaching the vast majority of individuals to be competent.

The web of philosophy, laws, education, government, and private agencies forms the structure of the transition initiative. With careful planning, collaborative use of resources, American ingenuity, tenacity, commitment, and time, our goals of quality of life for all our citizens can be achieved.

Over the past few years, I have experienced a growing discomfort with this view of the world. The logic and rationality of the above structure appears correct on careful inspection. I have been an educator all my life, an advocate for persons with disabilities, and a firm believer in equity for all. All of my being accepts the basic premise that with hand work and insight, people can make the world as it should be. Yet the gnawing felling that something isn't right persists. Is there a basic flaw in our thinking?

Competence, Capitalism, and Competition

I have few skills in describing the dynamics of capitalism. However, several tenets appear (at least to me) to be truisms. To be valued by our society one must work in order to earn enough money to have a reasonable living. We value each other for what we produce, rather than for who we are. There are not enough jobs (or at least jobs that provide a reasonable quality of life) for everyone who wants or needs jobs (Economic Justice for All, 1986). There are, and always will be, unemployed people. Life needs (e.g., food, housing, medical/dental care) are dispersed through free enterprise--citizens purchase these items and services with the wages they earn. The support services for individuals who cannot secure adequate employment (the infamous safety net for the truly needy) are inadequate compared to those of any other western culture. Even more distressing is the notion that most people who do not find adequate employment are lazy. Indeed, a free and appropriate education is available to every citizen, and if they do not take advantage of this opportunity, that is their problem. Daniel Boorstin (1974) has described education in the United States as the religion of democracy. Education is the means by which each citizen may better himself or herself and partake of our society. hence, educational intervention is viewed by the public as "appropriately American," whereas universal free health services, child stipends, or guaranteed minimum income are viewed as socialistic and "un-American." We can expend funds to provide the opportunity for individuals to learn the skills to be competitive, but after that they are on their own. We guarantee total access to education through our complex legal system, yet we do not provide access to even a minimal lifestyle through a guaranteed services, job, or income policy. Our system will provide massive resources for education and guaranteeing legal access to education (far more than other cultures), but will not provide basic life services. Once past common school age, individuals are expected to "earn their own way."

But, and this is the crux of my thesis, education of any intensity or duration does not, and indeed cannot, make up for the competitive disadvantages that people with disabilities face compared to individuals without disabilities. The issue is one of competitiveness versus competence. Education can achieve competency levels but not equity in competition. If for no other reason than whatever educational technology works with special education students will also work with the nonhandicapped population.

OK, so what's new? What's new for me is my realization that my society (the United States) is based on competition (capitalism). Being competent is not enough in our society; one must be competitive in order to partake of the good life (i.e., earn enough to buy the basics as well as the good things of life).

Regardless of how we arrange the educational environment, we will not be able to produce competitive individuals. Jobs are provided on a competitive basis. There are not enough jobs. Given this situation, how can special education EVER be successful in preparing persons with disabilities for competitive employment?

Well, you say, the American public recognizes fairness and will be willing to provide jobs to competent individuals even if there are other more competitive individuals also interested in the same jobs. Slowly repeat that last statement and tell me you believe that! Even if I did, I would ask myself. How do I justify giving jobs to

"my people" when other people--as needy as mine AND more competent--go without BECAUSE of my "political" intervention. For every job "we" get one disinfranchised person, another such person does not get a job. Doesn't seem fair to me! One the other hand, perhaps once Americans realize how unfair our system is for competent (yet not competitive) Americans, we will develop jobs for these people. Unlikely, I respond. The value that would make this likely is that of equity. Most Americans do not place equity in the top ten personal values. Americans highly value personal freedom, but not the personal freedom of others (equity).

Wolfensburger (1972) has eloquently expressed the goals of normalization and has provided a blueprint for achieving the desired outcomes. I agree wholeheartedly with the goal of normalization--a valued human being. I am much less enamored with the blueprint. In fact, I content that our stated goal of competitive employment for special education graduates implies that a person is not to be valued if he or she is are not competitively employed. I do not accept that premise. Not only is it wrong, it is evil. It is evil to set a standard of human worth that is clearly not obtainable for some 10-20% of our population (the sum of the stated and real unemployment rate in this country). I believe people should be valued because they are people, not because they are competitively employed. Professionals who insist on valuing only those individuals who are employed (by stating this as the only true goal or by supporting only those programs that focus on competitive employment) are at best misleading parents, special education students, and the public. At worst, they are contributing to the devaluing by our society of a substantial portion of our citizens.

Demographics of the Future

A recent article by Hodgkinson (1985) reviews the demographic predictions for our school age population. If these predictions are accurate, our education system is going to be even more impacted by numbers of needy students. These students will be poor, from single parent and non-English speaking families. There will be even more pressure than now on the education system to work miracles. Post-school support services will also come under additional strain. Some could argue at this point that competition will decrease. However, job openings will also decrease, with the major number of available jobs still providing substandard living (minimum wage levels have remained fixed for several years during which time the cost of living has increased by 30%) and a large number of people will be competing for these employment opportunities--hence, there could very well be increased competition for jobs for people with disabilities. We need to guarantee equal access to human dignity by insuring the basic necessities of life as well as insuring liberty and freedom for all.

Summary of Paradigms

Special education (and indeed most of human services) has accepted the goal of competitive employment as the desired outcome of treatment. The Federal government supports this outcome and funding for programs that emphasize areas other than employment is minimal. Parents of school-age students with disabilities tend to accept this goal. The legal paradigm is used to insure access to education. The educational paradigm has been successful in developing competence for people

with disabilities. However, in our society, competence is not nearly as important as competitiveness (i.e., higher competence than others). Regardless of how much education tries, there will always be someone less competent that another. In our society, a percentage of competent people will be at the end of the employment line and will not get jobs--not because of their incompetence, but because there are not enough jobs. American view education as the method individuals can use to better themselves. Other social and health services are devalued by society or are viewed as services that people should purchase, not services that society should provide. Relatively few Americans highly value equity. (Equity is viewed as good by most people, but the questions is, how many values are placed ahead of equity?). Thus we have a situation where not matter how efficient we become educationally, we will continue to be frustrated by NOT reaching our goals.

Alternatives

I find it much easier to be an investigative reporter (ferreting out what is wrong) than a proposer of rationale recommendations for corrective action. There appear to be four actions that our profession could take in response to my concerns about the transition initiative.

Improve educational technology

There are many of us who deeply believe that through hard work and persistence, education can provide answers to our dilemma. Next year, or after we have adequate funding for research (if we could just have research funds in special education equal to one B-1 Bomber, well then...), and with time, we can solve this problem. American technology put a man on the moon, and we can do anything if we try hard enough.

My reading of the situation is that educational research has "ceilinged out." The paradigm of environmental manipulation has "aged out." We are in the phase that Kuhn (1970) describes as an aging paradigm. Research is not addressing issues of concern by the larger society, but instead is involved in minutia. Policy statements are bold, but data are lacking to support the proclamations. Politically entrenched professionals refuse to listen to alternative recommendations. Textbooks reflect the "theology of the field" more than the status of the field. We (as a profession) are in the doldrums of the transition from an aging paradigm to an infant paradigm. We are waiting for the revolution.

But even if I'm wrong and the educational paradigm proves adaptable to our problems, or, even if a new paradigm explodes on the scene with "new" ways of viewing the world, even if we find new ways to make or help people with disabilities greatly expand their skills repertoire, even if all this occurs, how will we respond to the end-of-the-employment-line syndrome in a capitalistic society?

Changes in American Values

Perhaps we should focus on changing the values of Americans. One of the stated goals of mainstreaming (integration, least-restrictive environment) is to expose people without disabilities to people with disabilities. When this happens, advocates say, there will be more widespread acceptance of persons with disabilities. How this increased acceptance will manifest itself has never been made clear. I suppose there will be acceptance and even friendships.

A more vocal group of advocates has been addressing the media and public opinion of disabilities. Events such as the Special Olympics are questioned, telethons are discouraged, and implicit discriminatory remarks in the press, in literature, and radio and TV are monitored and exposed. This group believes that by removing the negative connotations from people with disabilities, there will be a corresponding increase in positive connotations.

What makes more sense to me is that as a profession, we attempt to increase the placement of equity in the value structure of our society. If equity, the beliefs in the rights of all people, gets into the top five of America's values, maybe then our society would provide a reasonable life for all Americans.

Change our form of government

A solution that has crossed my mind is to advocate a change in our form of government. Socialistic societies value all their citizens by ensuring a base standard of life. This is probably not the appropriate forum for this discussion, although at times I must admit that putting the headband back on and hitting the streets has crossed my mind.

Change our goals

A serious possibility would be to change the goals of special education. Rather than setting competitive employment as our "desired outcome," we could set a series of "quality of life" indicators as our goal. For example, having companion and friends seems to be as important as working. The qualifier, of course, is money. One's abilities to partake in the fruits of our society are almost all contingent on financial resources. Concurrent with any change in goals will have to be an attempt to provide basic services to people with disabilities (e.g., health care, housing) and some type of financial stipend. Given access to basic life services (where are you now that we need you, lawyers?), the development of quality-of-life programs to "fill" one's day would be possible. For example, volunteer programs, parttime jobs, recreational, art, or other options are clearly possible IF the need to earn money to buy life's necessities is NOT an issue. Somehow we have accepted the notion that the only real measure of success is competitive employment. We can only be failures with this goal. We will only continue to allow thousands of persons with disabilities to strive for a goal that cannot be achieved. We are participating in an exaggerated example of Progressive Status Quoism (Farber & Lewis, 1972). We appear to be making progress toward solving a problem when in reality there is no real progress being made nor can there be using current procedures. Someone must inform us that the emperor has no clothes.

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Commentary: Reflections on the Transition Initiative

Martha K. Markward
Visiting Educational Specialist
Office of Career Development for Special Populations

Dr. Edgar's paper provides a fascinating social policy analysis of the transition initiative for persons with special needs. This analysis involves the examination of the interaction between values represented in the purposes and goals of the initiative, the means to achieve the goals, and the outcome (Moroney, 1981; Rein, 1976). The competitive employment outcome of the initiative receives considerable emphasis in the discussion.

Dr. Edgar reviews the values of the goals and purposes, as well as the means to achieve them, that underlie the initiative. From Dr. Edgar's perspective, the values that have guided the policy are found in normalization, legal, and education paradigms. As a composite, these paradigms suggest that in order for persons with disabilities to be valued in society, they must be afforded the rights to an appropriate education to enhance their competence relative to competitive employment. The question posed by Dr. Edgar is whether competency can result in competitiveness.

While Dr. Edgar takes issue with the notion that competency results in the capability of persons with disabilities to compete successfully for employment in our society, he neglects to clarify that the normalization paradigm evolved within the context of socialism. In a capitalistic society such as ours, competition reflects a liberty value where freedom and choice are extended to avoid the paternalism that is perceived as counter-productive to the economic and social well-being of society (Moroney, 1981; Friedman, 1962). While past and present approaches to social welfare are consistent with this view, these approaches have emphasized a divisive "we-they" societal relationship in which "we" are the non-poor and integrated and "they" are the poor and alienated (Moroney, 1981; Titmuss, 1968).

In fact, Dr. Edgar illustrates a societal division with respect to the future employment potential for persons with disabilities in this country. Bluestone (1986) substantiated a tendency toward increased inequality in wages, unequal distribution of incomes, and increased competition for employment in this nation. These findings seem to imply that even competent persons with disabilities will be seriously disadvantaged in the competition for wages and incomes as a result of the inequities in our economic structure and future economic trends. This dilemma represents a structural incompatibility wherein the interactions between the values represented in the goals of the transition initiative and the means to achieve these goals are out of synchrony with the competitive employment outcome.

Dr. Edgar addresses the structural incompatibility of the initiative in his delineation between "equity" and "access to equity." Dr. Edgar believes that equity can be achieved through the universality of and access to basic life services where all individuals are valued. Whereas the provision of universal services is based in the recognition of <u>common</u> human needs and in the value of the individual as a human being, the provision of exceptional services emphasizes differences in human needs

and implies a hierarchy among individuals. Generally, exceptional services result from an emphasis on competition, are means tested, and tend to stigmatize, divide, and create barriers to community, cooperation, mutual aid, and collective responsibility (Moroney, 1981). Titmuss (1971) illustrates the difference between universal and exceptional services:

> It is the explicit or implicit institutionalization of separateness whether categorized in terms of income, class, race, colour, or religion [or disability], rather than the recognition of the similarities between people and their needs which causes much of the world's sufferings. (Titmuss, 1971, p. 238)

Interestingly, competitive employment may become even more crucial in the institutionalization of separateness that has accompanied the "privatization" of human services in the restructuring of the welfare state in the United States (Abramovitz, 1986; Dickinson, 1986; Stoesz, 1986; Kamerman, 1983; Private everything, 1980). Abramovitz (1986) perceived privatization as "channeling public dollars into private hands, strengthening the two-class welfare state, and reproducing inequalities that the free market inevitably produces." Stoesz (1986) suggested that this phenomenon of restructuring represents the emergence of the corporate welfare state and the exploitation of the post-industrial human services market.

An example of the privatization of human services is illustrated in the health maintenance management concept where employment tends to be the means test to access quality services. Within this framework, universal services tend to be maximized for the non-poor, integrated, and employed, while simultaneously, exceptional services tend to be maximized for the poor, alienated, and unemployed. In addition, this pattern of service provisions suggests less service for those most in need.

In sum, Dr. Edgar's investigation has questioned the value of an initiative that emphasizes competitive employment as a criterion for quality life and the societal value inherent in the competition associated with capitalism. In a corporate welfare state that has not reached its limits and where worker productivity is a primary value (Stoesz, 1986), Dr. Edgar's concern regarding the reality of the competitive employment outcome for persons with disabilities is justified. In addition, a social justice value to modify this trend seems warranted (Abramovitz, 1986). Inasmuch as values provide the criteria by which the desirability of a course of action is judged (Moroney, 1981; Rein, 1976), Dr. Edgar has introduced new criteria by which to judge the desirability of the course of action reflected in the initiative for the transition of persons with disabilities from school to work.

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Chapter 6

Worksite Modification to Enhance the Productivity of Persons with Severe Disabilities: Art, Science, or Witchcraft

John Leslie, Ph.D.

Cerebral Research Foundation Kansas, Inc.
Wichita, Kansas

Worksite Modification to Enhance the Productivity of Persons with Severe Disabilities: Art, Science or Witchcraft

Title sound somewhat flippant? Well, maybe so, but any discussion involving the utilization of technology to enhance the productivity of persons with severe disabilities must take into consideration that there is not a unified body of knowledge specifically related to this subject. Also, worksite modification is not represented by a common body of professionalities. Persons with backgrounds in electrical, industrial, or mechanical engineering, industrial design, and occupational therapy can effectively perform worksite modification. In fact, "gadgeteers" with little or no formal technical training may be very effective in this field.

Professionals working in worksite modification say somewhat whimsically that their clients come "in groups of one." This may be a trite expression, but there is a large degree of truth in it. Contrary to the traditional medical role of rehabilitation engineering, designing for productivity in the worksite involves more than a medical diagnosis. A functional description of the task, compared to the person's capability, demands that each individual situation be analyzed as a separate problem with a unique set of knowns and unknowns. The point of all this is that the reader should realize that there is not a specific "cookbook" that can be taken off the shelf to give specific answers to the vocational problems confronting persons with severe disabilities. It is a matter of the practice of traditional engineering and rehabilitation disciplines combined with experience, common sense, and "gut" feeling.

Is it all doom and gloom? No. Even though this field of endeavor requires a lot or original, creative though and custom application, there are a series of generic statements that can be made relative to the application of technology to employ persons with severe disabilities in meaningful jobs. The following series of paragraphs will examine a series of general guidelines which must be considered if one is to be successful in this business.

To deal effectively with worksite modification, it is absolutely mandatory that a functional evaluation be made of a disabled person's capability and this person's profile be matched with the tasks of the intended job. The Wichita Rehabilitation Engineering Center (REC) has developed the Available Motions inventory (AMI) to perform a functional evaluation of potential workers in blue collar jobs. While this evaluation hardware/software is quite sophisticated and is being refined daily, there are still gaps in the general area of functional evaluation of disability. Dr. George Kondraske and his colleagues at the Rehabilitation Center at the University of Texas at Arlington, have developed a similar, more sophisticated type of apparatus to measure the capability of disabled individuals on more of a microscopic scale. The point of emphasis in this discussion must be the fact that an evaluation system must stress the person's capability and not his/her discapability. Traditionally, in the medical realm, one is told what a person cannot do. Successful worksite modification requires objective, definitive knowledge of what a person can do.

What has been sorely lacking in the field of vocational rehabilitation is a functional definition of what constitutes a person with a severe disability. The author's experience has largely been associated with people who have been classified as severely, multiply physically handicapped. In most cases, vocational rehabilitation professionals classify these people as unfeasible for employment. Business and

industry must be made aware of the fact that this population can be productive in a mainstream work environment with the judicious application of low cost technology. Persons with moderate physical disabilities can be put to work with minimal worksite modification. However, people with multiple physical disabilities, such as those with cerebral palsy, may require extensive modification of the worksite as well as necessitate an aide and attendant for personal care needs. At the outset, when dealing with the application of technology to employment, one must functionally define the level of disability of persons to be served.

Continuing the line of discussion outlined above, one must also distinguish those persons handicapped through congenital disabilities (developmentally disabled) or those individuals disabled through trauma at a later age. In many cases, it is quite simple to design an adaptive device to allow the trauma victim to return to his/her old job. There individuals probably have the social/educational backgrounds to seek employment. They lack the physical skill as a result of their disability to be productive at their prior places of employment. The disabled person with a proven employment track record with an educational background and a marketable skill represents a different problem than the congenitally handicapped person with little or no social/educational experience. The practitioner in the field must be aware of the differences between the trauma victim and the congenitally handicapped person. The congenitally handicapped person, in many instances, has lived in a sheltered environment and if he does have an education, in many cases his educational credentials are phoney. The congenitally handicapped person requires a maturation process in order to become productive on the job. Even though the trauma victim may process psychological and emotional problems associated with his/her disability, at least this individual, in most cases, has had work experiences. The congenitally handicapped person has not. The point of all of this discussion is that the problems confronting various client populations are different. Some problems may be entirely technical, some may be combinations of technical, educational, psychological, etc. Professionals in the field of workstation modification should recognize these individual differences and call on the members of a rehabilitation team to assist in dealing with those beyond his/her realm of technical expertise.

When applying technical principles to enhance the productivity of persons with severe disabilities, one must make the results of his/her work pragmatic and available to all segments of business and industry. In many cases, the small "mom and pop" industry can better respond to the needs of the handicapped person from a humanistic point of view. However, many of these organizations are inadequate as far as their work practices and tooling are concerned even for their able-bodied employees. The successful practitioner in the field of vocational rehabilitation engineering must not make the results of their analyses so sophisticated/costly that the small organization cannot apply them. In other words, the best application of technology is a <u>simple</u> application. One should realize that if a design/device works, it has a lot going for it. In quasi-scientific terms, worksite modification can be classified as hi-tech, low-tech, and no-tech. Studies by the Berkeley Associates have proven that most of the modification utilized to make persons with severe disabilities productive on the job are very inexpensive, costing $200 or less.

Associated with the element of cost and application is the fact that industry must be made aware that, in most cases, worksite modification for the person with severe

disabilities results in a job being performed more efficiently by the able-bodied person. They have to realize that the "game must be played by the rules." Simply stated, able-bodied persons cannot be hired to substitute for handicapped persons whose workstation has been modified. It has been the author's experience that this occurs on occasion because business and industry realizes that a modified worksite is more efficient. They are able to get more productivity out of an able-bodied worker using devices developed for a person with a severe disability.

The reader is strongly encouraged, when examining any literature related to worksite modification, to question the cost of the adaptation and who paid for it. Even though low-tech and no-tech modifications may be quite inexpensive, if a modification costs anything and there is no source of funds, the issue is a moot one.

Any discussion of worksite modification should examine the employment model being studied. If a person is in a mainstream work environment, one should question the longevity of the tasks that the person will be performing with his/her adaptive device. A custom adaptive device and/or worksite modification for a job which may or may not be there tomorrow does not pass an elementary economic test. Since worksite modification, particularly for the severely physically disabled person, may require custom adaptation, it is imperative that the employment commitment be of long duration. However, subsequent modification may also be important when an individual with functional impairments is promoted and/or transferred.

An associated question related to a mainstream employment environment concerns the profitability of the job in question. If the service and/or product being performed/produced by the disabled individual is not a profitable one, it does not make sense to adapt a person with a severe disability to increase productivity resulting in greater losses for the firm. Since it may be extremely difficult to cross adapt or cross train a severely disabled person, the work being performed must be profitable to the organization or the disabled persons will work themselves out of a job.

A very real problem associated with employment of severely handicapped persons is the welfare system supporting an immense number of handicapped people. Economic disincentives inherent in welfare systems are, in many cases, the main barrier to the successful and productive placement of persons with severe disabilities. In many instances, it is more economical for the handicapped person to remain on the welfare roll than it is to seek employment. The concept of total dependence or total independence as practiced in this country does not encourage the severely handicapped person to seek employment. In fact, it encourages just the opposite. A system of economic supports/subsidy based upon the elements of productivity in the work environment would certainly go a long way to insure that the severely handicapped person can achieve and, more important, maintain the same economic status as his/her able-bodied counterpart. Indeed, this concept is currently being supported in several bills pending in Congress which espouse the concept of "supported employment."

At the present time, there is little or no motivation on the part of business and industry to employ the severely physically/mentally disabled person. As alluded to earlier, the post-trauma victim with a reasonably sophisticated social/educational background and a marketable skill can be employed with appropriate adaptation. The severely disabled person, handicapped from birth with a salable skill, provides a much greater challenge since the potential employer is largely dealing with an unknown

quantity. Current legislation in Congress requiring the utilization of rehabilitation engineering in the vocational rehabilitation process should go a long way to alleviate the problem of providing technical solutions to human productivity. However, without appropriate tax credit incentives and/or rigidly enforced quotas which would encourage industry to provide aide and attendant care and/or professional staff in-house to deal with the problems of persons with severe disabilities, there will never be significant numbers of severely handicapped people employed in mainstream industry. Several corporations, such as DuPont, Sears, IBM, and AT&T, have outstanding records of employing handicapped people. However, if these records are examined under close scrutiny, it is discovered that a unique set of circumstances have been present to insure that disabled person's success. Unfortunately for the vast majority of handicapped persons, this has not been the case.

In order to insure productive employment, the satellite systems that support employment must be place and must be effective. Adequate transportation to and from work is an absolute must to facilitate success on the job. As previously mentioned, for the severely handicapped person, aide and attendant care may have to be provided at the workstation in order to serve his/her human needs. Accessible housing and community recreation are both important requisites for meaningful employment. One does not work for money, one works for what money will buy. The handicapped person who does not have appropriate housing and the recreational opportunities to spend his leisure time is not a whole person. This creates emotional problems resulting in unhappiness at home which, unfortunately, translates to unhappiness on the job. An unhappy person is not a productive employee.

Up to now, professionals applying technology to human productivity have stressed the problems confronting severely physically handicapped persons. The successful vocational rehabilitation engineer must realize that the sheltered workcenters of this country employ tremendous numbers of mentally ill/mentally retarded persons. The broad application of technology to vocational problems should not only concern those confronting physically disabled persons. in many cases, the worksite modifications associated with people with physical disabilities can be effective for those having mental retardation/mental disabilities. The mere act of making a job simpler, and/or easier to perform, allows the mentally handicapped individual to become productive. Many if not most work centers are uncapitalized and are not staffed by persons with technical backgrounds. Literally tens of thousands of mentally disabled persons can be productively employed through the interaction of the media of rehabilitation engineering. One should realize that any information generated on worksite modification must not be limited only to mainstream industry but should be shared with all agencies employing both physically and mentally handicapped persons. This is a segment of the handicapped population that the profession must not neglect.

Effective worksite modification involves a team approach. Psychologists, vocational rehabilitation counselors, and medical personnel may be members of the team because "people failures" may preclude technical success. Often adaptive devices may be beautiful technical achievements and markedly improve human productivity; but if persons exhibit inappropriate behavior on the job, their continued employment will be placed in jeopardy. For the person with a severe disability, a cadre of support services may be required. This individual may require accessible

housing, transportation, and/or aide and attendant care as previously stated. Before even considering productive employment (particularly in mainstream industry), the rehabilitation team should ascertain if these support services are in place in the community and, even more important, can be funded with a financial source with a high degree of longevity.

If significant numbers of persons with disabilities are to be employed in either mainstream or supported employment, employer attitudes must be modified, not through emotionality but through pragmatism. A "bleeding heart" approach destroys the creditability of the concept of worksite modification since rooted in the concept is the fundamental idea of human productivity. The employer, and more specifically the individual's foreman or supervisor, must have the same expectations of disabled persons as their able-bodied peers. While reasonable accommodation is certainly a meaningful term, this accommodation must not be carried to the extent that persons with severe disabilities are not carrying their own weight as productive employees.

The above concepts are philosophical/esoteric in nature. What about the specific methodology required to put a severely handicapped person on the job? If one examines the fundamental action elements associated with white and blue collar employment, two basic tasks emerge as prominent. The first involves the concept of machine activation--turning something on or off. This is by far the easiest worksite task to be modified. Activation devices may consist of magnetic switches, photoelectric switches, puff-sip switches, mercury switches, ultrasonic switches, etc. These devices are typically wired in parallel with the apparatus' traditional mode of activation; thus the machine can be operated by able-bodied persons during other shift periods. This is a relatively simple thing to do.

The second element related to a task involves materials handling. This is by far the more difficult problem to solve in worksite modification. Persons with dysfunctional hands have difficulty handling material. Typically, these problems can be solved by positioning hardware consisting of hydraulic and pneumatic holding and clamping devices and/or electro-mechanical positioning fixtures with appropriate electronic logic.

The Wichita REC is currently experimenting with the use of simple robotic arms to perform material handling. Functional evaluation, giving the rehabilitation engineering an indication of the physical capability of the handicapped client, is absolutely mandatory in order to establish menus of material handling devices. Specific applications of devices used in the white collar vocational setting may include: typewriter paper feeding devices, paper guides, keyboard shields, and/or templates. Special desks with lazy susans with height and width adjustments may be developed to accommodate wheelchair workers in both blue and white collar environments. Special keyboards which will utilize head sticks and mouth sticks to enable the disabled person to operate a computer, type, sort files, etc. are currently being developed by the Wichita REC.

The application of vocational rehabilitation engineering and the utilization of technology to enhance the employability of persons with severe disabilities is an idea whose times has come. National Institute of Handicap Research (NIHR) and Rehabilitation Engineering Society of North America (RESNA) are two national agencies promoting the utilization of technology in a vocational setting. As indicated previously, current legislation pending in the U.S. Congress will go a long way to

facilitate the use of technology to assist handicapped persons who aspire to a job. The development of a resource document to facilitate the creation of a service delivery model for vocational rehabilitation is a current activity of a consortium of the Electronics Industry Foundation (EIF) and RESNA. The concept of professional certification and licensure to insure quality of services will have to be examined in the next several years in order to insure that profiteering quacks do not enter the field en masse.

Sources of rehabilitation engineering talent include college graduates from four-year accredited programs of mechanical, industrial, and electrical engineering as well as persons with a background in industrial education/technology and occupational therapy. Community college graduates with an educational experience in engineering technology, pre-engineering programs, and industrial education can also be effective in the field of worksite modification. For handicapped persons living in rural communities, high school vocational education personnel (shop teachers) can be effective in this field because they have a firm knowledge of the pragmatism of technology. Senior project students in both two- and four-year engineering programs as well as vocational education students in two- and four-year programs can also be effectively utilized to undertake specific vocational rehabilitation projects under the direction of a faculty advisor. Professional societies such as IIE, ASME, and IEEE will perform community service projects to accumulate national chapter development credits for their local chapters. Typically, these organizations are looking for applications of technology to assist mankind. The annual reports of the Rehabilitation Engineering Centers (RECs) and Research and Training Centers (RTCs) sponsored by NIHR are excellent sources of information on the application of rehabilitation engineering. Not all of them have a vocational objective, however, and the reader should keep this in mind.

Needed inputs from rehabilitation professionals relative to the challenges of vocational rehabilitation engineering revolve around the following questions:

- What will be the demand for vocational rehabilitation engineering services?
- Is the service necessary? (Apparently Congress thinks so.)
- Who will fund rehabilitation engineering?
- Who will pay what and how much?
- How will a service delivery system be developed?
- How will services be provided and to whom?
- How will service delivery organizations be developed?
- How will billing procedures be developed?
- Will the system function within the traditional medical model or be a "stand alone" organization?

Rehabilitation professionals must assist the vocational rehabilitation engineer in the definition of problem packages to avoid high costs and to insure the marketing of hardware with generic applications. It is an exciting time. The future challenges related to worksite modification to enhance the productivity of persons with severe

disabilities should result in the marketing of services through research utilization networks fostered by national legislative support. The time has come that professionals in this field not just banter around words on the subject but exert a positive influence which results in handicapped persons getting meaningful, productive jobs. THE CONSUMER MUST BENEFIT. He/she should demand no less.

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Commentary: Worksite Modification to Enhance the Productivity of Persons with Severe Disabilities: Art, Science, or Witchcraft

Jay Lowe, Jim Tasic and David Espeseth

Graduate Research Assistants
Office of Career Development for Special Populations

Dr. Leslie's paper began with a positive statement on the importance of evaluating the abilities of an individual in relationship to performing a job when considering worksite modifications. Surprisingly, this vantage point may be unfamiliar to many practicing rehabilitation professionals who orient to an individual's disabilities in the context of eligibility purposes. His emphasis on the need for objective, definitive knowledge of what a person can do is well taken.

Dr. Leslie discussed the social and educational differences of the congenitally handicapped person versus the traumatically handicapped person. It may not be in the best interest of objective assessment to generalize about disability groups. However, the importance of recognizing the limits of a given discipline and drawing upon the strengths of the rehabilitation team in problem resolution is an excellent concept.

The economic implications of job site modifications were developed in an effective manner. Simple and low-cost modifications can be useful modifications. The possibility of increased productivity of the "able bodied work force" could be an effective marketing tool to allow job site modification considerations by employers. Dr. Leslie made a conscientious effort to introduce frequent doses of reality in all of his discussion of job site modification. However, his discussion of economic disincentives for clients and employers did not take into account provisions of the Social Security Act which may disengage economic dependence. Nor does he reference economic incentives from the vocational rehabilitation program, such as on-the-job evaluation on-the-job training, or the targeted jobs tax credit available to employers.

Toward the conclusion of this paper, Dr. Leslie focused on two concepts to consider in work-site modifications. The activation of a machine and material handling in a blue collar or white collar occupation may be beneficial approaches in the initial organization of assessment information related to modification engineering. These approaches and the resources suggested by Leslie would seem to be extremely helpful.

Dr. Leslie has made a valid attempt to point out the potential of utilizing job site modifications as a means for facilitating the access of disabled individuals to the competitive employment market. He built a strong case for the need for individualized, specific modifications based state-of-the-art technology within the context of broad sociopolitical concepts.

Chapter 7

Revising Vocational Education in the Secondary School: Implications for Handicapped Students

Jane Plihal, Ph.D.
Department of Vocational and Technical Education
College of Education
University of Minnesota, St. Paul

Revising Vocational Education in the Secondary School: Implications for Handicapped Students

During the past few years, we have observed heightened concern about the quality of education being provided by our American schooling system. Educational researchers and leaders have identified weaknesses in our current schooling structures, practices, and policies. They also have recommended a variety of ways in which we could work on improving our schooling enterprise.

Within these studies and recommendations, vocational education in the secondary school has received some attention and a common criticism: that it contributes to the tracking of students and the truncating of their opportunities--saying to some students that they are less able intellectually and more likely to end up in low-paying, low prestige, and dead-end jobs. However, researchers such as Boyer (1983) and Goodlad (1984) have voiced strong support for vocational education in the secondary school while calling for changes in curriculum design and delivery. For example, Boyer (1983) made the following statement about the importance of vocational education and the need to eliminate the vocational track:

> Eliminating the vocational track does not mean abolishing all vocational courses. Indeed, many of these courses are enriching and useful. They provide excellent options for a wide range of students and should be strengthened, not diminished. What we would eliminate are discriminatory labels and a tracking pattern that assume some students need no further education and that cut off their future options. We would also eliminate the narrow "marketable" skills courses that have little intellectual substance, courses that give students "hands-on" experience while denying them a decent education. (p. 127)

And Goodlad (1984) said:

> I further believe that vocational education, including guided work experience, is an essential,not merely an elective, part of general education--and here I go beyond many of vocational education's strongest advocates. This means that vocational education is for all students, not just an alternative to academic studies for the less academically oriented. I want the college-bound students to include vocational studies too, just as I want to be sure that students not going to college secure a balanced program in academic subjects. (pp. 147-148)

One of the voids in the reform reports is attention to the education of handicapped students. We are left with questions: As we reform secondary education and, as part of that, as we reform vocational education, what will be the consequences for handicapped youth? Will the reforms exacerbate the severe unemployment and underemployment problems already faced by this group? Or will some revisions of secondary school curricula improve the quality of educational services received by handicapped students in secondary schools? It is important to keep in mind a statement from Phelps (1986):

> Clearly, the need to broaden and strengthen the quality of educational experiences received by handicapped youth in secondary schools and the transitional phase of their youth is imperative. Without better preparation, the likelihood of improving their employment prospects and successful adjustment to living independently will be minimal at best. (p. 5)

The purpose of this paper is twofold: to explore alternative ways in which we could conceptualize vocational education in the secondary school and to suggest implications of each conception for handicapped students. More specifically, three different ways in which we could think about vocational education in the secondary school--about its purpose, its content, and the students it serves--are described. Following each revision, some implications for handicapped students, especially for their ability to make a transition from school to the work environment, are suggested. Although there are other ways in which we could revise vocational education in the secondary school, the three particular proposals presented in this paper have been selected for discussion because they contrast with one another, each is based on the work of a respected scholar, and they represent current thinking about vocational education in the secondary school.

Revision #1: Providing Occupationally Specific Training

One revision of vocational education in the secondary school could be described as providing occupationally specific training. This vision is drawn from the perspective of John Bishop, an economist with the National Center for Research in Vocational Education at The Ohio State University, who argues that the only type of vocational education that is related to some measurable outcome is occupationally specific training, and, therefore, vocational education in the secondary school should be revised to be only of this type (Bishop, 1986).

The logic behind this perspective seems to be as follows. Compared with vocational courses, academic courses are more efficient and effective at developing students' basic skills and at achieving the cultural and political goals of public education. Further, academic courses are just as effective as vocational courses at teaching students transferable skills or generic job skills. However, of the high school graduates who do not go on to college, those who have taken only academic courses earn less in the years immediately after graduation than those who took both vocational and academic courses (Campbell, Basinger, Dauner, & Parks, 1986). The type of vocational education related to students' ability to obtain and maintain employment is occupationally specific training rather than exploratory vocational education. Therefore, according to Bishop (1986), the only current justification for the existence of vocational education in the secondary school is an economic one. And the only type of vocational education that has economic benefits is occupationally specific training.

Who would be served by this occupationally specific training and what would it look like? This vision of vocational education would be especially important for noncollege-bound students. According to Bishop (1986), 63% of the labor force has no formal schooling beyond high school and occupationally specific training would be beneficial to this segment of the population. Because occupationally specific training is economically beneficial--to students and employers--only when students take jobs related to the occupation for which they were trained, students admitted to this program should have a strong commitment to the particular occupation for which they are being trained. To be admitted to this program for the last two years of high school, students would be required to have participated in a career selection program; to have participated in conferences where they, their parents, and a guidance counselor were

involved in discussing career choices; to have held a part-time job in the occupational area or interviewed and shadowed people working in the occupation; and to have entered into a signed agreement with parents, the vocational teacher, the school, and employer representatives which commits the student to completing a specified amount of training at a designated level of achievement.

This type of vocational education would train a student for a relatively broad occupational area (e.g., food service rather than baking). Students in the training program who achieved a performance standard by the end of their junior year would be required to participate in a cooperative education program during summers and the senior year. Student who did not meet the minimum standard would be dropped from the program unless they found a job on their own which was related to their training. These cooperative placements generally would not consume more than one-third of the school days so that students could complete a strong program in the basics in addition to their training program. Vocational teachers would help their students and graduates find jobs related to their specific training. They also would be expected to conduct follow-up interviews with former students to obtain information about the students' current jobs and suggestions for improving the training program.

How would this version of vocational education affect handicapped students? It might serve the needs of some handicapped youth fairly well--if certain criteria are met. For example, upon entering the 11th grade, the handicapped youth (as well as any non-handicapped youth) would have had to identify and become committed to a fairly specific career goal that did not require a college education, would have had to have gone through career selection and guidance programs, would have had to have held a part-time job in the occupational area or had first-hand contact with people as they work in the occupation, and have signed a contract to meet expectations about completing the training at a specified performance level. For some handicapped youth, such as the orthopedically impaired, the speech impaired, and the hard of hearing, this type of vocational education probably would be as appropriate as it would be for non-handicapped students. However, the program requirements seem to ask a lot of any sophomore in high school. Should we encourage these fairly serious career choices at this stage in their development? And is it flexible enough to respond to individual learning styles and tempos?

For students who are cognitively impaired, Bishop's (1986) vocational education program would seem to be suitable in some ways and unsuitable in other ways. The program would involve students in actual work sites, and this should be advantageous to students who have difficulty transferring what they learn in a classroom to what they do in another environment. But Bishop's (1986) plan also specifies training in an occupational area rather than for a specific job. For the moderately and severely retarded youth, this training might not be specific enough.

There's another facet of this vision of vocational education with pro and con sides. On the pro side, handicapped students would experience a strong academic or basic education as well as learn skills desired by employers. And with the expectation that teachers would help graduates find jobs, perhaps this educational program would increase the employment rate of handicapped youth. On the con side, we might worry about teachers and employers unintentionally using their stereotypes to pigeonhole handicapped youth into certain occupational programs according to their handicaps. At a conference held at the University of Minnesota this spring on the topic of

motivation and empowerment of persons with disabilities, Michael Erlichman, a lobbyist with the Minnesota legislature, related his experience with being typecast after his accident:

> I was a lobbyist. I made a fairly decent living. But in order to lobby, I needed a vehicle that was equipped with a lift, and most of my financial resources had been pretty well drained after a year in the hospital, and I was left, you know, in a financial state that left a little to be desired. So, all I wanted from DRS (Department of Rehabilitation Services) was to get some help to buy a van. And somebody told me, "They can help ya outfit a van." So I called up, made an appointment, and the guy immediately said, "Well, you have to go through an evaluation." And I said, "Well, really all I want to do is see if I can get some money for a van, 'cause then I can go to work, you know, and then I can earn my living, ply my trade." "Well, you really have to go through an evaluation, and have you ever considered computer programming?" It seemed that, if you were disabled and you were in a wheelchair, then DRS counselors immediately equate you with a computer. That's the new salvo for disabled people. And in a way, we still segregate. Because what we're doing is we're putting all these disabled people in little cubicles with computers, and now we say, "Good, we finally found something those gimps can do; they can do computers, and God knows we need lots of computers."

Bishop, no doubt, would not want this type of typecasting to go on. But because history indicates that we have continued to use stereotypes and unwarranted assumptions when counseling students toward various occupational paths, vocational education as occupationally specific training would need to create and employ safeguards against such inequitable practices.

Revisions #2: Reconstructing a Common Curriculum for All Students

A second revision calls for "restructuring a common curriculum for all students." This vision, developed by Jeannie Oakes (1986), a social scientist with the Rand Corporation and an expert on tracking, reconstructs new purposes, organization, curricula, and language for vocational education in the secondary school. Oakes (1986) argues that any amount and type of tinkering with vocational education programs will not solve the problems of educational quality and distribution. What is required is a curriculum that eliminates the "academic" and "vocational" tracks and that contains "a core of highly-valued knowledge, broad intellectual and manual skills, and rigorous learning experiences to be taught commonly to all children in school" (p. 65).

The purpose of this reconstructed vocational education would be to provide "all students highly-valued and essential knowledge, skills, and attitudes that will enable them to function intelligently as adults in an uncertain, tumultuous technology--and information-based twenty-first century" (Oakes, 1986, p. 66). This purpose would mean that all students would learn basic, generic, and transferable processes and manual skills.

It is essential in this reconstruction that vocational education be structured as part of the common curriculum in comprehensive elementary and secondary schools--as valued learning for all students at all ages. Vocational classrooms would contain heterogeneous groupings of students; tracking systems and differentiated curricula would be eliminated. Any specialized vocational preparation for special groups of the student population would occur after the completion of the common curriculum.

The reconstructed vocational curriculum that Oakes (1986) envisions would be organized around concepts drawn from academic disciplines: one set of basic concepts would be drawn from philosophy, history, and economics; a second set would come from science and mathematics. Concepts drawn from these disciplines would help students learn, for example, about economic principles of production and consumption and about technology for transforming materials into goods and services. The curriculum would involve students in gaining knowledge, using this knowledge in classroom activities, experiencing the translation of this knowledge into actual work situations, and developing values and attitudes about work and the workplace. The methods of instruction would encourage learning processes and values important in the workplace (e.g., corporation, team problem-finding and problem-solving, boldness in proposing ideas), and learning activities would present students with real-life or real-life-like problems (problems which are--among other qualities--ambiguous, occurring in specific circumstances, requiring action, and having consequences).

Because of the associations historically and erroneously made with the term "vocational education," Oakes (1986) argues that we should use a new label for this reconstructed vocational education. She offers two alternatives: "technology and economic sciences" or "technology and economic literacy."

Oakes (1986) presents a vision of a reconstructed vocational education which is a "concept-based, rigorous, multi-model curriculum to be taught commonly to all students in elementary and secondary schools" (p. 79). She realizes that acceptance of this proposal would be revolutionary.

If we were to revise the school curriculum, to create a common curriculum for all students, how would handicapped youth be affected? Perhaps the major benefit would be the elimination of the opportunity to track handicapped youth. In her book, Keeping Track: How Schools Structure Inequality, Oakes (1985) documents the disproportionate number of poor and non-white students in low-track programs such as vocational education. Evidently, she did not examine the placement of handicapped youth, but we might suspect that they, too, have been disproportionately placed into courses which do not increase their occupational opportunities. Oakes' (1985) common curriculum would make it more difficult for educators to act on unwarranted assumptions about handicapped students' capabilities,educability, and probably destinies. Further, Oakes (1985) reports that "heterogeneous classes are considerably more advantaged in terms of classroom content and processes than many average- and nearly all low-track classes" (p. 195). Consistent with the thinking underlying mainstreaming, handicapped and non-handicapped students can benefit from being in classes together--but especially in non-tracked classes.

It is possible that Oakes' (1985) common curriculum might not serve some handicapped students especially well. Although the plan includes development of manual skills as well as reasoning and interpersonal skills, for some handicapped students with limited cognitive ability this curriculum might not place sufficient emphasis on the training of specific job skills. This potential limitation could be handled if, even with a common curriculum, there would be provisions in the school to serve students with specific and definite learning needs.

Revision #3: Designing Vocational Education for the "New Work"

Arthur Wirth (1986), professor emeritus of history and philosophy of education at Washington University in St. Louis, suggests a revision of vocational education that could be called "designing vocational education for the 'new work.'" As a foundation to his recommendations about vocational education, Wirth draws on work by Hackman and Oldham (1980) to sketch two scenarios for the near future of work in the United States.

Scenario I emphasizes "fitting people to jobs" by technological and behavioral engineering. This mechanistic, scientific management approach to work design is characterized by practices such as engineering tasks into minute trainable tasks, creating "people proof" jobs, using external controls to shape and correct performance, supervising with electronic monitors, and separating the experts who think about the work from the people who do the work.

Scenario II emphasizes "fitting jobs to people." This democratic sociotechnical work design is characterized by such qualities as placing considerable responsibility for planning and executing work with the people who do the work, treating people as responsible members of the workplace community, and organizing workplaces so that people can continue to learn and adapt to change.

Wirth then proceeds to draw upon work by Pratzner (1985) to describe two paradigms of vocational education--one now dominant and an alternative.

The approach to vocational education that is compatible with Scenario I bases its content on an analysis of the needs of industry. Its purpose is to train workers with entry-level skills for specialized jobs. And this type of vocational education features performance-based curricula, norm-referenced testing and grading, and the involvement of business and labor representatives in planning, delivering, and evaluating programs. This is the version of vocational education advocated by Bishop and described in more detail earlier in this paper.

Vocational education supporting Scenario II would focus on the development of sociotechnical literacy--a concern for the social and human aspects of work as well as technological dimensions of work. This version of vocational education would develop basic skills and higher-order, transferable skills and skills in the organization and management of production. The goals of this type of vocational seem to be the goals proposed by Oakes in her reconstruction.

Wirth (1986) argues that compared with questions about "how to work," it is more important to raise questions about "what work to do." He claims that "educators...have an obligation to reserve the usual question asked by industry: Are the schools producing students prepared for corporate work? Educators must insist that an equally relevant question is whether American business and labor leaders are designing places of work worthy of students coming from creative, intellectually stimulating learning settings--for those in lower as well as high paying jobs" (p. 42).

Wirth (1986) goes on to plead that teachers resist rationales from industry which interfere with their obligation to develop liberalizing skills--skills required for maintaining and reforming a just society. "To avoid the dualisms in work and education that betray the democratic aspirations of American culture we face a two-fold problem: How to create more work that is personally fulfilling and socially useful and how to educate Americans so that they will struggle to realize such a goal (p. 42).

Wirth (1986) argues that vocational education should become more compatible with Scenario II. This revision of vocational education would be part of students' general education and would combine the aim of developing conceptual-technical competence with the aim of developing flexible, participative work and learning style. (Vocational training, that is, training people to acquire entry-level job skills, would be separate from this vocational education as general education.) Students would be helped to understand the critical role of work in human life and would be engaged in experiences to help them discriminate between good and bad work.

What would this type of vocational education mean for handicapped students? It seems that Wirth's revision would be ideal for handicapped and non-handicapped students--and for our society. What could be better than to reform our work roles and work environments so that everyone could engage in socially responsible, ethical, humane, and challenging work? But, can we do it? Is this something we know how to do if we decide to do it?

The following are just examples of what might be involved in designing vocational education for the "new work." We would need to prepare handicapped (and non-handicapped) students to both fit into the existing work force and learn how to change it once they are in it. We would need to teach students to examine critically ideologies that cause oppression of certain groups in the work force--people with disabilities being one of these groups. We would need to teach political skills as well as technical skills. We would need to create a new social consciousness and ethic. Many handicapped people would be very effective by helping to shape this "new work"; some would need advocates to speak for their needs and interests.

Summary

These, then, are three ways to revise vocational education in the secondary school and an indication of some implications of each revision for handicapped youth. All three plans would emphasize the development of students' cognitive, social, and vocational skills.

Bishop's (1986) plan is most obviously and immediately tied to employability. However, this plan involves tracking students at a relatively young age into occupational goals and capabilities.

Oakes's proposal abolishes tracking and homogeneous grouping. It develops fairly generic employability skills (such as problem solving and cooperation), but does not train students for specific occupations or jobs. Oakes' common curriculum might not be responsive enough to the needs of certain handicapped students.

Wirth's (1986) revision goes a step beyond Oakes' in that he calls upon vocational education to enlighten and empower students to reform our work lives. This seems ideal, enormously ambitious, and a goal toward which we should strive.

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Commentary: Revising Vocational Education Curriculum Redesign: Implications for Disadvantaged Students

Roosevelt Thomas

Graduate Research Assistant
Department of Vocational and Technical Education

The fundamental concern of vocational education in secondary schools is to create and implement a curriculum that is right and fair for students (Plihal, 1987). This single statement has profound significance for a large number of students who aspire to enroll in vocational education courses at the secondary level--the handicapped, disadvantaged, single teen parents, and limited-English proficient students. Dr. Plihal provides an excellent overview of alternative revisions of secondary vocational education, especially the implications for handicapped students. This commentary is intended to expand this dialogue to address specifically the implications for disadvantaged students.

Dr. Plihal points to the general agreement among researchers on the assumptions that vocational education should prepare people for life roles, that it occurs in a variety of places, and secondary school is the appropriate place for vocational education. There are proponents who argue that all students should have a tough classic academic curriculum and others touting the importance of landing a paying job. Although there is agreement about the place and purpose of vocational education in our system of education, there appears to be considerable and diverse opinions about redesign efforts to make the system more effective in preparing all students for adult roles, (Silberman, 1986; Bishop, 1986; Wirth, 1986, as cited by Plihal, 1987; Finn, 1986; Dawson, 1987; Cheshire, 1973).

Finn (1986) recognizes the non-college bound students as innocent victims of the education reform movement and raises the questions: What should youngsters learn in high school? And, what are the qualities that will equip students for the future? He asserts that there is a clash between the proponents of a "classic academic curriculum" for all students and those of a multi-track system featuring vocational education for the non-college bound. Regarding the latter, it is suggested that a "common core" curriculum is ill-advised for some youngsters: the handicapped, the seriously disadvantaged, and those who will enter the workforce or a technical training program directly after school. Is it right, or is it realistic to impose tough academic standards for all students?

Of the reasons for going to school (social, personal, and utilitarian), Finn (1986) views the first two as "rival views" or competing views in relation to the third reason--utilitatian, in which the school prepares young people for the next stages of their lives by supplying credentials and skills that they will need right away. This domain has generated heated debate over curriculum.

Unemployment rates in advanced industrial nations have been at unprecendented levels throughout the last decade. The rate for the handicapped, disabled, the disadvantaged, and unwed teen mothers is staggering.

Dawson (1987), University of Ottawa, in "Education in an Era of High Unemployment: A Curricular Response," points out that of the factors that will influence rates of unemployment, high technology will eliminate large numbers of jobs and new developments in the world economy will result in further loss of jobs to Third World countries. He makes a distinction between voluntary unemployment and ascribes to three definitions put forth by Cheshire (1973):

1) frictional unemployment--those unemployed persons for whom jobs in their field exist.

2) structural unemployment--those for whom no jobs exist in their own field, but for whom there would be jobs if they changed fields.

3) demand deficiency unemployment--those for whom there are no jobs even if they were to change fields.

Dawson points to the withering away of the post-World War II full-employment goals of the United States, Britain, and Canada. The notion of unemployment as a hardship has been challenged, and it is felt that unemployment cannot be reduced without substantial increases in the inflation rate. The new consensus on unemployment seems to be that government should attempt to limit the extent and hardship of unemployment as long as it does not lead to increased rates of inflation, and that there is the notion of a growing tolerance of a "natural" or "normal" rate of unemployment (NAIRU--non-accelerating inflation rate of unemployment).

Dawson ascribes to a philosophy of education for unemployment and suggests that education can attempt somehow to equip students with skills that will increase their changes of finding and keeping jobs, or to furnish them with the knowledge and skill they need to create their own employment (entrepreneurial). After extensive interviews with unemployed persons, Marsden and Duff (1975) concluded that the school system should prepare people for the possibility of unemployment. Schooling should not merely provide "education to earn a living," but also "education for living."

Watts (1983) advanced three of the possible curricular objectives in "education for unemployment": survival skills, contextural awareness, and leisure skills. Survival skills and leisure skills both have the aim of helping people get along better while they are unemployed. Contextural awareness has the aim of seeking to help people see unemployment as a social rather than an individual phenomenon.

What does all this mean for the handicapped, the disabled, and the seriously disadvantaged who are already unemployed in disproportionate numbers? What hope is there of reducing the staggering rate of unemployment and dependency for these students? What incentives are there for students who have already or will dropout to return to school? The Institute for Educational Leadership (IEL) reports that the key to the dropout problem is that poor children are more likely to drop out than their more advantaged counterparts, that the greater the number of poor children in a school, the higher the dropout rate. Without a lot of help, it is very difficult for a youngster to overcome the hurdles of poverty. Another key element is race. IEL reports that approximately 13% of white students drop out; between 12 and 24% of all black students do not complete high school; an estimated 40% of all Hispanic students leave school before graduation; in some school districts it is estimated that as many as 75% of Puerto Ricans dropout; and 48% of Native Americans dropout.

IEL findings suggest that alternative schools are often the best opportunity for both potential or actual dropouts because of the intensity of the learning environment and the concern given to the social and emotional needs of the students. Such schools share the characteristics documented in the "effective schools" literature. To quote the report more specifically, "Conventional education and remediation isn't effective, in itself, for the at-risk population. Isolated work experience will not reclaim impoverished and troubled youths. What will work is a comprehensive, integrated approach in which each element is strengthened and reinforced by the other components of the program."

IEL further asserts that their study concluded that isolated work experience programs have little value in raising the employability of dropouts:

1. Dropouts should work, but the experience from the worksite should be used as a pedagogical reinforcement in a connected classroom;
2. Dropouts should learn, but the curriculum should relate to the "functional" capacities needed in the marketplace;
3. Dropouts should acquire vocational skills, but not until they have learned to read;
4. Dropouts should be teacher-taught, but each student's individuality should be reflected in the teaching methodology used;
5. Dropouts should learn to read, but the learning environment should not resemble a traditional classroom;
6. Dropouts should be prepared for the labor market through pre-employment/work maturity services, but not until they are genuinely ready to conduct a job search. Writing resumes and practicing job interview skills should be the "exit" services and not the major thrust of dropout prevention or remediation; and
7. Above all, there must be an intensity or program services or, in other words, there must be "time on task."

IEL does not view these recommendations as revolutionary, and instead, views them as part of the web of school reform described by many analysts. Stated more succinctly:

> To reclaim the most severely damaged youngster requires a long, costly, multi-dimensional response. Recovery from a tragic childhood cannot happen instantly. Successful treatment may require psychological and social services, family support, individualized learning of basic skills at the student's pace, a measured and patient exposure to work, and ongoing social and vocational counseling while the youngster is on the job.

In the concluding remarks, the IEL report points out that taken individually, none of the program proposals and policy recommendations represents a fundamental break with examples that can be found in existing programs. They collectively constitute a comprehensive and potentially successful response to the dropout dilemma.

In summary, the report predicts that if schools in disadvantaged communities throughout the country take some responsibility for youngsters who have left as well as those who remain; if they address the family and personal problems of students as well as their academic performance by integrating the educational, health and social service systems; if they restore a lost sense of competency and individual worth by introducing a comprehensive program of remedial instruction; if they offer shut-out adolescents access to the mainstream economy through an integrated strategy of work and study; if they engage both parents and students in a just and fair process that combines discipline, guidance, and mentorship--if all this is done by a sensitive and committed administration and faculty, the schools would be in a better position to overcome the devastating legacies of race and poverty.

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Chapter 8

The Many Faces of Accountability

Robert L. Schalock, Ph.D.

Hastings College and Mid-Nebraska
Mental Retardation Services, Inc.

The Many Faces of Accountability

Pretend that you are a rehabilitation historian who looks back on the current scene 25 years from now and attempts to describe our efforts to rehabilitate persons with handicapping conditions. What would you see? Probably a number of trends including:

- The transition of persons into environments that are more productive, independent, and community integrated.
- An increase in sophistication in our use of behavioral skill training, prosthetics, and environmental modification.
- An evolution from reliance on center-based programs to those occurring naturally in the environment.
- Accountability for the outcomes from our education and rehabilitation efforts.

How the historian will describe and evaluate these trends is largely dependent upon our efforts and successes during the next decade. Thus we should feel accountable for our future and be concerned about how historians describe the outcome of our current rehabilitation efforts. It is this concern about our history that provides the stimulus for this paper, which focuses on the issue of accountability as it relates to employment opportunities and outcomes for persons with handicapping conditions.

This paper is divided into four sections. The first section is based on the premise that to understand a person, you must understand his or her memories. Rehabilitation programs generally evolve through a number of phases that are described and then used as the basis for the second section. Section 2 discusses the multiple dimensions of accountability that are primarily a function of an evolutionary phase and develops the concept that dinosaurs were accountable for something different from homo sapiens. The third section outlines potential employment-related outcomes that can provide answers to a number of accountability questions if used by rehabilitation programs to monitor their employment efforts. These measures are not exhaustive, but they do provide for the measurement, reporting, and accountability that increasingly are being required of education and rehabilitation programs. The final section suggests that accountability requirements can best be approached through the use of one or more types of program analysis including process, impact, and cost-benefit. Throughout these four sections the reader is encouraged to ask whether or not our current rehabilitation efforts are those that we will feel comfortable in reading about in 25 years. If the answer is "maybe not," then I hope the material presented will assist in changing that answer to "probably" or "definitely yes."

Evolutionary Phases

Most programs tend to progress through three distinct phases: the developmental period, which focuses on resources, including facilities, clients, manpower, and money. Accountability issues during this phase relate to developing and maintaining the resources necessary to provide rehabilitative services typically through the financial audit. Once they have been developed, most programs see the

need to become more refined and systematic in their service delivery. At this point programs evolve into the second phase, in which they develop a "system" that facilitates their measurability and reportability. During this phase accountability concerns how well the system is in place and whether or not staff members are following the policies and procedures of the system. Systems review becomes the mechanism whereby management monitors and evaluates the programs and their compliance with the various parameters and criteria established for the system (Schalock, 1983). The program and its system are felt to be accountable if policies and procedures are being followed.

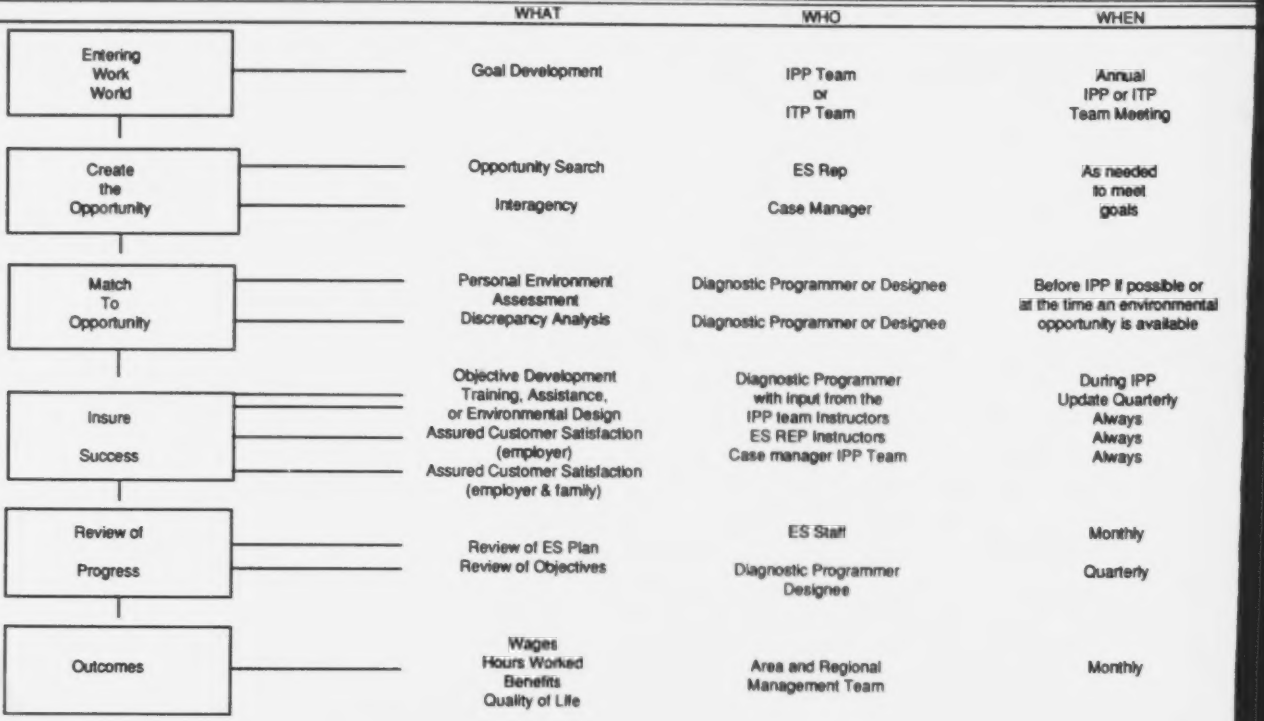
Many rehabilitation programs do not evolve beyond the second phase because of their misperception that if they are doing their thing, they are accountable. Within the last decade, however, a number of trends have directly impacted habilitation programs and as such have provided the catalyst for evolving into a third phase. Before describing that phase, let's look briefly at the following trends:

- Accountability defined on the basis of outcome, not process.
- Emphasis on the work ethic and employment.
- Wholistic perspective that stresses the quality of life as reflected in a person's degree of independence, productivity, and community integration.
- Replacement of the flow-through model and its associated entry-exit criteria and prerequisite skills with a discrepancy model, in which the mismatches between persons and their environments are reduced through behavioral skill training, prosthetics, and environmental modification.
- Social validity, which focuses on rehabilitation in the natural environment, and fulfilling the programmatic criteria of being functional, relevant, interactive, and outcome oriented.
- Multiple perspectives on programmatic environments (such as supported employment and work training stations) and employment-related outcomes (wages, hours, and benefits).

Obviously these trends have catalyzed many education and rehabilitation programs into their third evolutionary phase, in which programs interface with various public and private sectors of the community and attempt to become more accountable for client-referenced outcomes. This interfacing includes marketing and sales, interagency agreements, and transitional program plans. The complexity of this third phase--and the degree of sophistication and conceptualization required of program personnel--is shown in Figure 1.

Accountability is the issue of the third evolutionary phase. However, accountability is difficult during this third phase because there are numerous external factors over which a program administrator has little or no control. Furthermore, the heterogeneous constituency has different definitions of accountability. yet program administrators see the need to be accountable and to develop performance audits that stress client-referenced outcomes and staff utilization patterns.

Figure 1
THE PROCESS OF EFFECTIVE TRANSITIONS INTO EMPLOYMENT



In summary, this first section describes the three phases through which most education-rehabilitation programs evolve. The first phase stresses resources such as facilities, clients, manpower, and money; the second, a systematic approach to the services provided; and the third, an emphasis upon accountability through client-referenced outcomes. An additional intent was to suggest that accountability issues also vary depending upon one's evolutionary phase. During the first phase, one is accountable if the program is up and running; during the second, one is accountable if the system conforms to the self-established parameters and criteria. But during the third phase, accountability for client-referenced outcomes becomes diffuse because the program must respond to multiple environments and groups. In the next section I discuss the multiple dimensions of accountability.

Multiple Dimensions of Accountability

Accountability can be understood from a number of perspectives. At one level, accountability concerns who is responsible to whom and for what. This perspective focuses on a program's heterogeneous constituency and stresses that each constituent has potentially different criteria for a program's accountability. Program staff and management, for example, are accountable to the Board of Director for such responsibilities as client welfare, licensing, accreditation, program compliance with various standards, and client habilitation. The Board is accountable for the necessary resources to accomplish the program's goals and objectives and to the public for the provision of services. A more detailed discussion of accountability can be found in Schalock (1983).

A second perspective deals with the various dimension of accountability that depend upon a program's evolutionary phase. This perspective provides the focus for this section. Figure 2 summarizes the various dimensions in which the progression is from low to high (left side); in others, the progression is from high to low (right side).

Figure 2 is designed primarily to stress that the importance of a particular dimension of accountability depends upon the program's evolutionary phase. Let's look at some examples from those dimensions whose importance increase from Phase 1 to Phase 3. The responsibility of clients for their own growth, development, rights, and responsibilities, for example, increases as a program evolves and becomes more systematic and outcome oriented. Similarly, program personnel need to become more sophisticated and need to be able to conceptualize better the dynamic relationships between clients and their multiple environments. A good example of the accountability requirements associated with increased sophistication concerns the skill training techniques used in the Mid-Nebraska program. During Phase 1 (about 1970-1972), these techniques included watching, controlling, and incidental learning. Phase 2 (1972-1982) incorporated a more systematic approach characterized as precision-teaching a prescriptive programming, which included concepts such as acceleration/deceleration cycles and ratio-reinforcement contingencies. Phase 3 (1982 to present) focuses on applied behavioral analysis with its emphasis on environmental cues/control, stimulus/response chains, and generalization training. Analogously, our behavioral change strategies have also evolved from all-star wrestling, response cost and time out tactics (Phase 1), to deceleration tactics involving differential reinforcement schedules (Phase 2; Schalock & Koehler, 1984), to

Figure 2

IMPORTANCE OF VARIOUS DIMENSIONS TO PROGRAM

ACCOUNTABILITY BASED ON A PROGRAM'S EVOLUTIONARY PHASE

Evolutionary Phase:	Dimension Whose Importance Progress From:		Dimension Whose Importance Progress From:	
Phase I: Resources		—LOW		—HIGH
		Client Responsibility		Degree of Control
		Sophistication/Conceptualization		Internalization
		Documentation		Tangibleness
Phase II: Systematic		Program Risks		Locus of Control
		Client-Referenced Outcomes		Program Incentives
		Fiscal Control		
		Economic Benefits As Disincentives		
Phase III: Accountability and Systems Interface		—HIGH		—LOW

gentle teaching (Phase 3). Note the differences in accountability depending upon the phase of skill of training or behavioral change tactics used.

Documentation and fiscal control are other dimensions that increase owing to the trend toward accountability and diminishing resources that many agencies experience. Finally, client work disincentives increase largely because income maintenance programs can be jeopardized if a participant exceeds his or her substantial gainful activity level. Because most persons want to attain the highest level of satisfaction and safety, employment seeking and job placement may well be reduced when tax-free benefits are high (Walls, Zawlocki, & Dowler, 1986).

Figure 2 also demonstrates that the importance of some accountability dimensions decrease from Phase 1 to Phase 3 (right side). For example, agencies tend to lose more real and perceived control as they interface with the larger environment. Similarly, an agency's tangibleness decreases as it becomes facility free. Because success is often the result of inter-agency processes, the incentives to the specific program tend to decrease. As one might expect, the degree of the staff's internalization of program goals and objectives also decreases because of the diffusion of roles and responsibilities. Thus, agencies often conduct "Back to Basics" inservice programs for their personnel in order to counterbalance the trends toward less perceived control, tangibleness, and internalization.

A second purpose of Figure 2 is to demonstrate a number of built-in accountability conflicts that explain in part why many program personnel and agencies are sensitive to any discussion regarding accountability and the indexes used to measure it. One obvious example relates to increased client responsibility as opposed to the agency's emphasis on employment outcomes. As discussed previously, there are a number of financial benefits (such as SSI) that serve as strong disincentives to post-program work for clients. Thus, a common conflict occurs between program personnel who stress job placement and clients or families who resist the placement because it might reduce the person's financial benefits. One would hope that permanent enactment and use of 1619(a) and (b) will resolve much of this conflict. A second conflict concerns the risks that the agency takes in placing clients into less restrictive community environments. One risk is related to the agency's reputation if the placement has negative results; the second is that the client's reputation if the placement may well be a higher need person. many agencies are attempting to resolve this conflict by contracting for specific outcomes and reverse integration (Schalock & Keith, 1986). A third conflict deals with agency personnel who need to be more sophisticated and conceptual in dealing with Phases 2 and 3, yet find themselves feeling that they are losing control of the program because of its systems-level aspects. Phrases such as, "It's hard to push a rope" and "Facilitating services without the person being a client" reflect the complexity of Phase 4 accountability dimensions. Many agencies attempt to resolve this conflict through marketing and sales of the agency's philosophy, goals, and objectives.

In summary, this section has stressed that the multiple dimensions to accountability necessitate a clear understanding of the program's goals, objectives, and current evolutionary phase. Once these are understood, the multiple and frequently conflictual accountability requirements can be dealt with more effectively and efficiently. The next section focuses on a number of employment-related programs, consistent with the employment emphasis of this presentation. Outcome

measures for other human service programs can be found in Schalock and Thornton (in press).

Employment-Related Outcomes

One of the major trends currently affecting education and rehabilitation is the emphasis on the work ethic, with corresponding accountability requirements involving employment-related outcomes. Federal and state governments have responded to this trend by committing significant funds and a high priority to placing severely handicapped persons into supported [competitive] employment environments. It is the author's feeling that this initiative will continue and thus more (re)habilitation programs will be held accountable for employment-related outcomes. But, for what specifically should one be held accountable? What are realistic employment-related outcomes that can be used for both accountability and program monitoring-analysis purposes? We propose a set of specific measures that are among those recently proposed by a National Concensus Seminar on Supported Employment Goals and Performance Measures (Berkeley Planning Associates, 1986). The set of four measurement domains includes employment outcomes, quality of placement, worksite integration, and systems change. Indicators of each are listed in Table 2 and are discussed more fully below.

Employment Outcomes

The key feature of supported [competitive] employment that distinguishes it from day activity programs is payment. Employment exists when a person's activities create goods and services that have economic value, and when he or she receives payment for work from an employer or customer. Therefore, the first step in measuring performance--and thus a measure of a program's accountability--is assessing the extent to which employment outcomes are achieved. As shown in Table 2, these outcomes can be organized into four general dimensions including: (a) actual placement/employment, (b) stability of that employment, (c) earnings, and (d) hours worked. Measuring these dimensions will enable programs to answer such questions as: To what extent is the participant involved in paid productive work, how well paid and how productive is the work, and is that work sustained over a period of time?

Quality of Employment

One of the current trends affecting rehabilitation programs is to offer participants an opportunity to shift from the often monotonous tasks performed under day activity or sheltered employment to productive and meaningful work involving a variety of tasks, the opportunity to acquire new skills, increased job satisfaction and security, and employment mobility. The measures listed in Table 2 represent a beginning to answering such questions as:

- What is the nature of the work?--Is it real and meaningful? Does it lead to skill development and job mobility? Is there a good match between the worker and the job tasks?
- What is the quality of the work environment?--Are appropriate job accommodations being made? What is the quality of the physical and social environments?

Table 2
EMPLOYMENT-RELATED OUTCOMES

EMPLOYMENT OUTCOMES

- Achieved Supported Employment outcome
- Hourly wage at placement
- Hourly wage at end of reporting period
- Received fringe benefits: health coverage
- Total earnings for reporting period
- Total hours worked during reporting period
- Number of weeks employed since enrollment
- Number of weeks employed with present employer
- Number of weeks employed during reporting period

QUALITY OF EMPLOYMENT

- Type of Employer
- Type of Job
- Who Pays Wages?
- Reason For Termination
- Participant's Post-Termination Status

WORKSITE INTEGRATION

- Type of Supervisory Structure
- Presence of Non-Disabled Workers
- Number of Supported Workers In Group Support Structure

SYSTEMS CHANGE INDICATORS

Proportion of eligible target population being served

Ratio of supported employment participants to total of other participants (including day activity, work activity and sheltered workshop programs)

Amount of funding for supported employment programming by source over time.

- What happens to participants after they leave their jobs?--Could program practices enhance job stability and retention?

Worksite Integration

The current wholistic trend toward increased independence, productivity, and community integration requires the integration of handicapped individuals into the workplace. Worksite integration focuses on providing opportunities for disabled and nondisabled coworkers to interact in a variety of settings and situations, including the immediate work environment, lunchroom, break times, or during travel to and from work. Although integration at the worksite is a primary goal, one should not overlook the importance of integration outside work. For many disabled persons, community integration is not only an essential prerequisite to successful integration at the worksite, but is also an outcome of successful participation in supported [competitive] employment.

A major constraint in measuring integration is the question of how to define and collect information on the extent and nature of contacts between individual works. At this point, monitoring the proportion of persons with disabilities to nondisabled persons is somewhat easier and the data relatively easy to collect. Thus, the proposed measures of worksite integration include: (a) the number of supported workers in the group support structure (such as work crew or work station); (b) the presence or absence of nondisabled workers (other than staff) in the immediate work setting; and (c) the type of supervisory structure utilized, such as program personnel or company supervisors.

System Change Indicators

The basic message in the trends impacting current rehabilitation services is that the current system, with its heavy reliance on vocational, pre-vocational, and day activity service programs, needs to be changed to one with more productive outcomes. Thus, if a performance measurement system is to include an assessment of the extent to which system transformation has actually occurred, then system change measures need to be developed and implemented. The basic question that then needs to be asked is, "What are we trying to change?" The suggested answers to this question include:

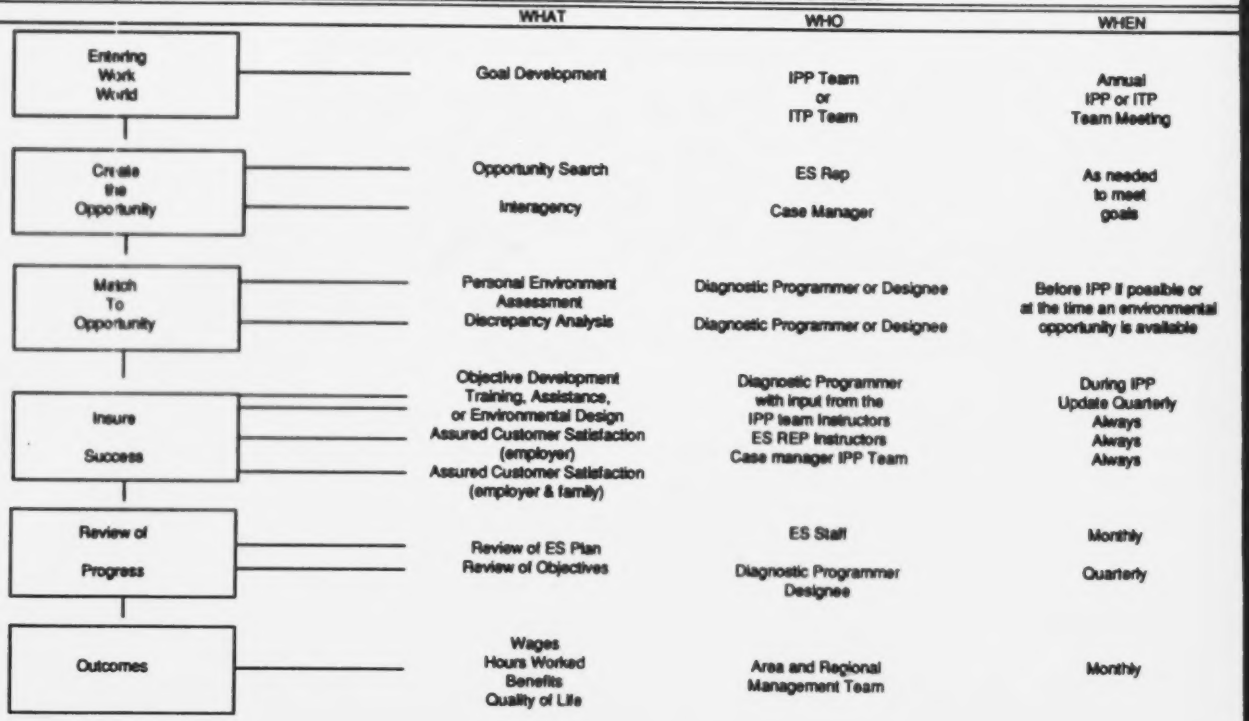
- Increasing opportunities for individuals with severe disabilities,
- Reducing the numbers of individuals in day activity programs, and
- Shifting funding patterns from traditional day programs and sheltered workshops into supported [competitive] employment.

Three measures provide the mechanisms for assessing the extent to which these changes have occurred. They include: (a) the proportion of eligible target population being served; (b) the ratio of supported [competitive] employment participants to others participants; and (c) the amount of funding for supported [competitive] employment programming over time.

Data obtained from these four measurement domains can be used not just for program-level accountability, but also can be useful to each of the following actors:

- Federal and state policymakers who are interested in whether the supported employment initiative is accomplishing its goals;

Figure 1
THE PROCESS OF EFFECTIVE TRANSITIONS INTO EMPLOYMENT



- State and local administrators who are interested in whether system transformation is occurring, and if so, in identifying the related cost and service impacts;

- Program operators who are interested in tracking project resources and services provided to participants, as well as the outcomes of services for participants, and in refining service designs to maximize project effectiveness;

- Consumer groups and individual parents and participants, who are interested in expanding community-based employment options and in choosing the best program for themselves or their children with disabilities;

- Employers who may be considering whether to hire a supported-employment participant or whether to sponsor a supported-employment group work site;

- Social scientists who are interested in tracing the net impacts of the investment in supported employment from the participant and taxpayer perspectives as well as in analyzing the factors influencing project effectiveness.

Addressing Accountability Through Program Analysis

The purpose of this section is to suggest that accountability can best be approached through the use of one or more types of program analysis. Two premises underlie this discussion. First, the direction of program analysis in the next decade will be more applied and policy oriented; second, the demand for program accountability will increase, along with measuring and reporting requirements.

To be accountable is to be responsible and clear. Yet questions are often raised regarding "accountable to whom" and "accountable for what." Our experience tells us that we are accountable to a heterogeneous constituency composed of consumers, taxpayers, politicians, staff, and other professionals. Each of us has his or her own accountability perspective and acceptance criteria. In the area of employment services for developmentally disabled adults, we are accountable to this population for their opportunity to gain economic benefits and an improved quality of work life. How this accountability might be realized is described in the following discussion, which describes four proactive analytic strategies for the next decade.

Analytic Strategies in the Next Decade

This section discusses briefly four analytic strategies that individuals in this field may want to use. The type of analysis one attempts depends on the questions asked, the complexity of available data, and the sophistication of the research efforts. The four strategies include experimental, formative, summative, and outcome-cost research.

Experimental Research

Some research efforts will continue to focus on evaluating hypotheses, determining cause-effect relationships, and conducting experimental control studies. This research strategy will require random assignment to groups, the ability to control internal and external variance, and informed consent. Experimental research will most likely explore policy considerations concerning such issues as programmatic/intervention effects, impact studies, and controlled multivariate analysis.

Programmatic/Intervention Effects. Studies involving random assignment to experimental/control or Program 1/Program 2 conditions will be conducted to determine the effectiveness of such model components as short-term training or supported employment.

Impact Studies. Various employment programs and strategies will be evaluated to determine their impact on outcome measures and the quality of community and work life.

Controlled Multivariate Analysis. Multivariate analysis as an experimental research design will be used to determine the relationship(s) between client and environmental characteristics (including training, employment, and support systems) and selected outcome measures.

Process Analysis

Process analysis involves describing what a program does, including its clientele, decision rules, and programmatic components. It frequently focuses on providing feedback to program managers about their program's history and effectiveness. These data can be used to formulate management hypotheses that can be answered through experimental research or impact analysis. Examples include client-referenced progress variables, such as skill acquisition, wages, quality of life, and movement into environments characterized as more independent, productive, and community integrated; utilization patterns; unit-of-service costs; quality assurance measures; staff turnover rates; consumer satisfaction surveys; and employer satisfaction surveys. This level of analysis requires standardized process and outcome measures, a computerized management information system, and management's ongoing commitment to questions and analysis.

Impact Analysis

The focus here is upon the impact that a program has on its clientele. The purpose is frequently to compare comparable programs on standardized outcome measures to determine which of a number of approaches to supported employment or short-term training (as examples) is the most effective and efficient. It is important to realize, however, that impact analysis can be conducted only on programs with similar goals, objectives, client characteristics, program components, and outcome measures. This strategy is more sophisticated and demanding because it requires comparable data from similar programs, but it should yield valuable information to policymakers and funding sources regarding the most efficient and productive way to provide employment for developmentally disabled adults.

Cost-Benefit Analysis

This level of analysis provides managers and policy makers with some indication to the benefits accruing from a specific program vis-a-vis its cost. The results of cost-benefit analysis can be used not only to make comparisons among programs but also to answer a critical accountability question among some constituents: "What are we getting for our money?" The following important points need to be kept in mind regarding cost-benefit analysis.

Multiple Perspectives on Outcomes. The majority of current perspectives focus on a social cost-benefit model that calculates both economic and non-economic aspects into the benefits, as opposed to merely how much the person repays society--the payback model. In addition, one needs to view the benefits from a number of

perspectives, including those of the participant, the taxpayer, and society in general (Schalock & Thornton, in press).

Multiple Perspectives on Cost. There is currently no agreed-upon formula for cost determination. Hence, some models include opportunity costs, time-related costs, and systems-level (rules and regulations) fixed costs.

These four types of analyses are presented in Table 3. They are not ranked according to level of sophistication, but should be determined by the questions asked, the available data sets, the research capabilities of the program or system, and the sophistication of the management information system. Any of the four analysis strategies results in information that should be useful to program managers and policy-level personnel in reaching the objective of developing employment services for developmentally disabled individuals. Furthermore, they will provide the accountability that habilitation programs currently need and will continue to need in the future.

In short, we are involved in a social experiment, the hypothesis of which is that we can make a difference in the lives and employment status of persons with developmental disabilities. This experiment not only can be conducted, but it must be conducted. What historians write about us in the future largely depends upon how seriously we respond to the many faces of accountability.

Table 3

RESEARCH STRATEGIES FOR THE NEXT DECADE: FOCUS, DATA REQUIREMENTS, AND PRODUCTS

Research Strategy	Focus	Data Requirements	Products
Experimental	Evaluating hypotheses Determining cause-effect relations Conducting experimental-control studies	Random assignment to groups. Control internal-external variance Informed consent-Reliable/valid measures	Programmatic/intervention effects Impact studies Controlled multi-variance analysis
Process Analysis	Management hypotheses Outcome-referenced data reflecting a program's effectiveness and efficiency. Describing a program's clients, decision rules and intervention strategies	Standardized process and outcome measures Computerized management information system	Staff utilization patterns Unit of service costs Quality assurance measures Program/Process Descriptions
Impact Analysis	Planning Budgetary Systems-level management issues	Programs with similar goals, objectives, client characteristics, program components, and outcome measures	Comparisons of different programs' impacts on comparable groups
Benefit-Cost Analysis	Program benefits Program Costs Accounting Perspectives	Multiple outcomes Costing methodology and capability Valuing Benefits	Program comparisons Benefit/cost analysis statements

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Commentary: The Many Faces of Accountability

Annette M. Veech
Visiting Educational Specialist
Office of Vocational Education Research

Janice A. Seltz
Graduate Research Assistant
Council on Teacher Education

History is certain to characterize the 1980s as the decade of accountability. Recent reports on education, such as A Nation at Risk: The Imperative for Educational Reform (National Commission on Excellence in Education, 1983), have provided the impetus for citizens to demand educational reform. In an attempt to improve the quality of our educational programs and increase public schools' accountability to the American public, standardized tests for students and their teachers are being required. With a national billion-dollar deficit and large amounts of money being spent on the arms race, this reform movement has implications for all programs benefiting from the federal tax dollar. Especially at risk are social programs that seek to develop our human resources. Politicians and the American taxpayer are in essence demanding proof that their tax dollars are being well spent.

Dr. Schalock's concern for how historians will view our current rehabilitation efforts is an important one from a humanitarian point of view (i.e., Are we making a difference in the lives of persons with handicaps?). With regard to the public's current demand for accountability, his focus is also timely.

Accountability factors and evaluation measures have indeed evolved into multifaceted indicators of the rehabilitation field's efforts to "vocationalize" persons with handicaps. These efforts now include the socialization and integration of persons with handicaps into community-based work settings and lifestyles (Rusch & Phelps, 1986). Dr. Schalock has presented this evolution in his chapter and proposes methodologies for evaluating the accountability of current rehabilitation efforts.

The case has been proven that persons with handicaps can indeed produce goods and services needed by our society with the aid of various forms of support services (Boles, Bellamy, Horner, & Mank, 1985; Wehman, 1981). However, the rehabilitation field is now being held accountable for evaluating the effectiveness of the quality of life, appropriate job match, and social integration of clients that result from these vocational placements (Bellamy, Rhodes, & Albin, 1986). As Dr. Schalock pointed out in his chapter, interagency collaborative efforts are integral to the provision of this plethora of services to persons with handicaps today. But as he stated, this collaborative process has resulted in the decrease of specific program incentives so necessary to each agency's staff internationalization of program goals and objectives. These conflicts inherent in serving clients with multiple needs bring to focus the fact that the every essence of the rehabilitation system is changing with unalterable swiftness. The dilemma is that most agencies are still rewarded for case closures evidenced by "final" employment placements, whereas the actual trend is to serve clients from various service perspectives (collaborative case maintenance) based

upon individualized needs. Therefore, it is imperative that, to be of value in the future, programmatic accountability must be accompanied by an assessment of current overall rehabilitation and economic trends.

The emphasis is now upon the "whole" client, requiring cooperative services from a variety of sources. Historical practices and outcomes within a variety of educational, rehabilitative, and job training disciplines could be of great value if integrated into current rehabilitation initiative efforts. However, it seems that professionals and authors presently active in the transition movement do not incorporate a great deal of the knowledge already proven within these fields (Phelps, 1986).

In order to evaluate these programmatic and global issues effectively and to identify the accountable factors (e.g., legislation, policies, practices, and practitioner efforts) related to them, it would seem that rehabilitation should be scrutinized as an interrelated economic/societal system. Economics encompasses the careful use of all resources, proactive thinking and strategic planning. As a system, rehabilitation has also evolved into a field in which careful application of all resources (client as well as facility) are now considered as accountable factors in vocational programming efforts. Economics is characterized by several assumptions: (a) there are limited resources, costs, benefits, and opportunity costs in any given situation; (b) individual choice, a given in any economic decision, may be measured in monetary and non-monetary terms; (c) incentives of each decision must be assessed; and (d) individual goals may be measured in terms of the situational context (Lane, 1985; Ostrom & Ostrom, 1977).

An initial parallel may be drawn in that rehabilitation resources are indeed limited: funding is restricted, limited training opportunities and time constraints are evident, and the move toward a fully integrated society has been comparatively slow. Although there are costs associated with the use of sheltered employment settings (i.e., low client salaries and social segregation), there are also costs involved in competitive employment settings (e.g., societal barriers and misconceptions, possible loss of Social Security benefits to clients). A variety of benefits to the worker with handicaps are now emphasized: quality of life, salary, fringe benefits, social opportunities, and family considerations to name a few. opportunity cost, what must be forfeited in exchange for what is gained, must now be viewed realistically in terms of Social Security benefits lost because of competitive employment earnings. Secondary incentives such as fringe benefits, personal independence, and social integration are viewed as equally important factors as salary. Appropriate job match between the individual and the work setting, supported training, and maintenance activities illustrate the current trend to correlate individual goals within the contextual employment setting.

The task, an extremely complex and difficult one, is to correlate the accountability of the overall system to the needs of the individual with handicaps. Only by evaluating the system at all levels (i.e., national, state, regional, local, individual), and from all perspectives (i.e., legislative, political, agency, consumer, family, employer, community), can the current rehabilitation movement be thoughtfully directed. Strategic, long-range planning efforts, inherent within the discipline of economics and demonstrated historically, may be utilized to develop a future system based upon planning rather than reaction.

In an attempt to put recent sports on education in perspective, Harry Broudy, Professor Emeritus at the University of Illinois (1985), stated that every third year of a decade is distinguished by a new educational crisis. In reality, however, each new crisis is part of a never-ending cycle. If effective school reform is to occur, a sound philosophy based on reflection and research-supported deliberation would seem an appropriate placement for the quick-fix, politically expedient methods to which we have become accustomed.

In the areas of rehabilitation, Dr. Schalock's proposed accountability strategies would provide data on the quality and outcomes of our current rehabilitation efforts. In conjunction with the collective body of knowledge available from education, rehabilitation, and the employment sector, these measures could provide personnel in the field with a knowledge base upon which to reflect.

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CONTRIBUTORS

FRANK BOWE, Ph.D.

Dr. Bowe is the President of FBA, Inc. a private consulting firm specializing in management training and writing for Fortune 500 corporations. Prior to establishing FBA, Inc. Dr. Bowe was the founding chief executive officer of the American Coalition of Citizens with Disabilities (ACCD).

DONALD M. CLARK, Ph.D.

Dr. Clark is the President and Chief Executive Officer for the National Association for Industry-Education Cooperation (NAIEC). His work experience includes positions both in the public and private sectors.

J. PATRICK DECOTEAU, Ph.D. candidate

Pat received his M.Ed. from Plymouth State College in New Hampshire and is currently pursuing doctoral studies in Education at the University of Illinois while working as graduate assistant for the College of Education's Graduate Programs Office. His research interests include secondary programming for special needs populations and curriculum research.

EUGENE B. EDGAR, Ph.D.

Dr. Edgar is a Professor of Education and the Principal Investigator for the Networking and Evaluation Team at the University of Washington. His recent writings have included topics centered around the provision of transitional services in special education.

DAVID ESPESETH, M.Ed.

David is an Adventure Programs Supervisor for the Maine-Niles Association for Special Education. He received his M.Ed. from the Department of Vocational Technical Education at the University of Illinois.

JOHN H. LESLIE, Ph.D.

Dr. Leslie is the Executive Vice President for the Cerebral Research Foundation of Kansas, Inc. His recent research has focused on worksite modification and rehabilitation engineering.

CALVIN J. LOWE, M.Ed. candidate

Jay is a Regional Program Administrator with the Illinois Department of Rehabilitation Services. He has worked for the past 15 years helping to transition youth with disabilities into the adult world.

MARTHA MARKWARD, Ph.D. candidate

Martha received her Master's in social work from the University of Illinois and is currently working toward a Ph.D. in Education at the University of Illinois while working as an educational specialist in the Leadership Development and Preparation program. The focus of her academic experience includes the areas of special needs, training and development in business and industry, and program evaluation.

HENRY MCCARTHY, Ph.D.

Dr. McCarthy is an Assistant Professor in the Rehabilitation Counseling Department at Lousiana State University. His recent writings have addressed issues relating to the employment of persons with disabilities.

JANE PLIHAL, Ph.D.

Dr. Plihal is an Associate Professor in the Department of Vocational and Technical Education at the University of Minnesota. Her current research includes the ongoing deliberation for the reconceptualization of vocational education at the secondary and post-secondary levels.

JEANNE B. REPETTO, Ph.D.

Dr. Repetto is a Visiting Assistant Professor and Co-Director of the INT Program at the University of Illinois. Her recent research has focused on issues surrounding equal access of youth with handicaps to vocational education programs.

ROBERT L. SCHALOCK, Ph.D.

Dr. Schalock is a Professor and Chairman for the Department of Psychology at Hastings University. His recent research has included developing, implementing and evaluating human service programs.

JANICE A. SIETZ, Ph.D. candidate

Jan received a M.Ed. from the Department of Vocational and Technical Education at the University of Illinois. Before returning for graduate work, Jan was employed by the Champaign, Illinois schools as a Resource Teacher/Consultant for the Visually Impaired.

JAMES A. TASIC, M.Ed.

Jim received his M.Ed. from the Department of Vocational and Technical Education at the University of Illinois. His interests lie in the incorporation of a pedagogical approach to exposing visually impaired individuals to the arts.

ROOSEVELT THOMAS, Ph.D. candidate

Roosevelt is the Building Opportunities Specialist for the Champaign-Ford Counties Regional Office of Education. His recent research focuses on the provision of services to the "at risk" population.

ANNETTE M. VEECH, Ph.D. candidate

Annette is a Visiting Education Specialist with the Office of Vocational Education Research at the University of Illinois. She is currently completing her doctoral degree in the Department of Vocational Technical Educaiton, and is specializing her work in program evaluation.